IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

LONE STAR TECHNOLOGICAL INNOVATIONS, LLC,
PLAINTIFF,

VS.

ASUSTEK COMPUTER, INC.,
DEFENDANT.

CIVIL ACTION NO. 6:19-CV-59-RWS

TYLER, TEXAS

MAY 18, 2021
8:54 A.M.

TRANSCRIPT OF JURY TRIAL

BEFORE THE HONORABLE ROBERT W. SCHROEDER, III

UNITED STATES DISTRICT JUDGE

FOR THE PLAINTIFF:
Mr. Joshua J. Bennett
Mr. Bradley D. Liddle
Ms. Monica Litle
CARTER ARNETT, PLLC
8150 N. Central Expressway
5th Floor
Dallas, Texas 75206

Mr. John D. Saba, Jr.
WITTLIFF & CUTTER, PLLC
1209 Nueces Street
Austin, Texas 78701

Mr. John Lee
BANIE & ISHIMOTO, LLP
2100 Geng Road
Suite 210
Palo Alto, California 94303

COURT REPORTER:
Ms. Kate McAlpine, RPR, CSR, CCR
Federal Official Court Reporter
Texarkana Division
500 N. State Line Avenue
Texarkana, Texas 75501

(Proceedings recorded by mechanical stenography, transcript produced on a CAT system.)

FOR THE DEFENDANT:

Mr. Vinay V. Joshi
Mr. Andrew T. Oliver
AMIN, TUROCY, & WATSON
160 W. Santa Clara Street
Suite 975
San Jose, California 95113

07:54:48 P R O C E E D I N G S

07:54:48 (Jury out.)

08:54:05 THE COURT: Okay. Let's go on the record.

08:54:08 Good morning, everyone. It's about 10 minutes
08:54:12 until 9:00. I know there were some filings overnight,
08:54:20 including a motion for a mistrial or a curative
08:54:26 instruction. I do want to hear from the parties about
08:54:28 that.

08:54:29 I don't think it's necessary that we resolve that
08:54:32 right now. I certainly wouldn't -- you know, assuming the
08:54:40 Court doesn't grant a mistrial, I certainly wouldn't give a
08:54:44 curative instruction during the middle of a witness's
08:54:47 testimony, but I do think it's -- how long do we expect
08:54:51 this witness's testimony to take?

08:54:55 MR. BENNETT: I don't have any more documents to
08:54:58 cover with Mr. Lin. I hope 30 minutes or so, depending on
08:55:05 what happens.

08:55:06 THE COURT: Okay. And then how long --

08:55:11 MR. JOSHI: I expect my cross and my direct to be
08:55:14 an hour and an hour and a half.

08:55:15 THE COURT: Okay. So we'll certainly get to the
08:55:18 morning break by that point, and we can deal with the
08:55:22 mistrial, curative instruction request.

08:55:24 Is there anything we need to address before we
08:55:28 begin the witness's examination this morning?

08:55:31 MR. JOSHI: Not for us, Your Honor.
08:55:33 MR. BENNETT: No, Your Honor.
08:55:34 THE COURT: Okay. Let's have the jury brought in, please.
08:55:37
08:55:38 COURT SECURITY OFFICER: All rise for the jury.
08:55:42 (Jury in.)
08:56:28 THE COURT: Please be seated.
08:56:30 Good morning, ladies and gentlemen of the jury. Welcome back. I hope you all had a pleasant evening. I appreciate your being here promptly so that we can start on time, actually a little bit early this morning.
08:56:34
08:56:38
08:56:42
08:56:45 When we concluded the day yesterday, Mr. Bennett was in his examination of the witness.
08:56:51
08:56:53 At this time, Mr. Bennett, you may continue.
08:56:56 MR. BENNETT: Thank you, Your Honor.
08:56:56 ALFRED LIN, PLAINTIFF'S WITNESS, PREVIOUSLY SWORN
08:56:56 CONTINUED DIRECT EXAMINATION
08:57:00 BY MR. BENNETT:
08:57:00 Q. Good morning, Mr. Lin -- or morning for us, I should say. It's probably evening for you, I would imagine.
08:57:04
08:57:11 A. Good morning.
08:57:12 Q. Just because we've spanned testimony over the day, I just want to review where we were really briefly so we can get on the same page this morning, okay?
08:57:18
08:57:23
08:57:37 A. Okay.

08:57:44 MR. BENNETT: Are you --
08:57:45 THE COURT: We're working on it, Mr. Bennett.
08:58:37 Okay. Let's try that, Mr. Bennett.
08:58:40 MR. BENNETT: Thank you, Your Honor.
08:58:44 Do you have access, Denver?
08:58:50 We're having trouble pulling up our exhibits.
08:58:55 Please bear with us.
08:59:10 THE WITNESS: Okay.
08:59:41 THE COURT: Mr. Bennett, excuse me just a moment.
08:59:45 I want to ask Ms. Josh something.
08:59:48 Ms. Josh, are you sharing your screen, by chance?
08:59:55 THE INTERPRETER: No. No, Your Honor, no. It's
08:59:56 not me.
08:59:56 THE COURT: Okay. I just wanted to verify.
09:00:18 THE INTERPRETER: Your Honor, if I may, it's a
09:00:20 traditional Chinese on the screen, so you might need to ask
09:00:25 the witness.
09:00:26 THE COURT: Okay. Would you ask the witness if
09:00:30 he's sharing his screen? Ms. Josh?
09:00:38 THE INTERPRETER: Can you hear me, Your Honor?
09:00:40 Yes?
09:00:40 THE COURT: Okay. Can you ask the witness if he
09:00:44 is sharing his screen?
09:01:04 THE WITNESS: Is that better now?
09:01:04 THE COURT: Yes.

09:01:07 THE WITNESS: How about this?
09:01:07 THE COURT: That's better, but I'm not sure that it solved it.
09:01:11
09:01:28 Just sit tight a moment. The IT folks are trying to force a restart, and if you'll give us just a moment, we'll see if that will work.
09:01:32
09:01:39
09:01:49 THE WITNESS: Okay.
09:02:34 THE COURT: Ms. Josh, I am --
09:02:34 THE INTERPRETER: Yes, Your Honor?
09:02:36 THE COURT: -- I am informed that the witness is, in fact, sharing his screen, and that's what's creating the problem.
09:02:40
09:02:45
09:02:45 Can you ask him to make sure he's not?
09:02:47 THE WITNESS: Okay. I got it, but I'm not sure how to enable or disable the sharing feature, and I see right here on my screen there's one arrow on the right -- far right of my side, is that the one that I should disable to make it color red? That's the way that I will stop sharing; is that right?
09:03:40
09:03:44
09:03:49
09:03:53
09:03:58
09:04:00 THE COURT: Let's see -- it's the only thing I can suggest. Let's try that.
09:04:01
09:04:05 THE WITNESS: Okay.
09:04:11 THE COURT: That should do it, Mr. Bennett.
09:04:14 MR. BENNETT: Thank you.
09:04:17 THE WITNESS: Okay.

09:04:21 THE COURT: Let's try that.
09:04:22 MR. BENNETT: Okay. Thank you, Your Honor.
09:04:24 BY MR. BENNETT:
09:04:24 Q. Yesterday, Mr. Lin, I just -- like I said before, I
09:04:28 want to just kind of review where we were since we've all
09:04:32 had an evening to sleep, get on the same page, and get back
09:04:36 into some of the documents we need to look at today.
09:04:39 But, first, we looked at Plaintiff's Trial
09:04:44 Exhibit 13, which was the email between you and an ASUS
09:04:48 project manager.
09:04:49 Do you remember that?
09:05:16 A. Yes.
09:05:17 Q. And we talked about how ASUS requests features like
09:05:21 those listed in 7, 8, and 9 and implemented those features
09:05:26 in its display products.
09:05:28 Do you remember that?
09:05:38 A. Yes.
09:05:54 Q. Okay. Then we looked at Plaintiff's Exhibit 14A, which
09:06:00 was that FAQ page that discussed 6-axis color independent
09:06:05 control.
09:06:06 Remember that?
09:06:27 A. Yes.
09:06:27 Q. And right there at the middle of that page, there was
09:06:30 those products listed that the FAQ -- strike that.
09:06:31 Right there in the middle of the page, there's a

09:06:34 listing of products to which the FAQ, F-A-Q, applies.
09:06:40 Do you remember that discussion?
09:07:02 A. Yes.
09:07:03 Q. Okay. We talked about the first -- strike that.
09:07:06 We looked at the user guide for the first product
09:07:10 listed there, which is PA248.
09:07:17 Do you remember that?
09:07:24 A. Yes.
09:07:24 Q. Okay. Now what I want to do is go to -- talk about
09:07:28 just a -- two more of the products listed in that product
09:07:30 listing, PA328 and PA329, okay?
09:07:46 A. Okay.
09:07:46 Q. So let me take you to Plaintiff's Exhibit 15 and
09:07:59 specifically to Page 20 of the overall documents marked 3-2
09:08:16 within the user manual.
09:08:18 Do you see that, sir?
09:08:31 A. I can see the picture right now.
09:08:34 Q. Okay. And this is the part of the manual that
09:08:38 instructs ASUS users on how to adjust the settings on -- in
09:08:43 their stream, correct?
09:09:13 A. The fonts are very small. Is it possible for you to
09:09:16 help me to enlarge the portion we are going to discuss,
09:09:21 please?
09:09:22 Q. Yes. This is not an eye exam. I'm happy to bring it
09:09:27 up.

09:09:27 MR. BENNETT: If you could bring up that table, Denver. That's what I wanted to focus on, the function, brightness contrast.

BY MR. BENNETT:

Q. Do you see that better, sir?

A. Thank you. Yes.

Q. Okay. In this table, ASUS is showing its users that they can change saturation under certain user modes, right? If you look at the far right-hand column and the row for saturation, it shows users, if they want to change saturation, they've got to go into User Mode 1 or User Mode 2, right?

A. Yes, I can see that.

Q. All right. And that's at -- so if users are to follow -- strike that.

If users followed ASUS's instructions in this manual, they could adjust the saturation settings under User Mode 1 or User Mode 2, right?

A. Yes.

Q. And same question for hue. If the user -- if the user follows the instructions of this manual, they can go into User Mode 1 or 2 and change the hue, as well?

A. Yes.

Q. And then on the following page, ASUS teaches its users about how to specifically change the hue and saturation in

09:12:16 the monitor settings, right?
09:12:33 A. Would you please enlarge the portion we're discussing
09:12:36 now, please?
09:12:37 Q. Sure. Actually, I misstated. I said the following
09:12:40 page. It's the following page in my binder but not in the
09:12:44 manual.
09:12:48 MR. BENNETT: Let me go two pages -- two pages
09:12:49 over, please.
09:12:49 BY MR. BENNETT:
09:12:59 Q. So here in this manual, ASUS instructs users how to set
09:13:04 a desired -- set a color setting from the On-Screen-Display
09:13:11 menu, right?
09:13:24 A. From what I see on the screen, yes.
09:13:28 Q. Okay. And below that, one of the bullet-pointed
09:13:31 settings, and it's similar to one we've seen already, is
09:13:36 advanced setting, and it teaches users how to change the
09:13:40 6-axis hue adjustment, right?
09:14:00 A. Yes.
09:14:01 Q. And it also teaches users how to change the 6-axis
09:14:06 saturation adjustment if they wanted to change that
09:14:10 setting, too?
09:14:10 A. It's written in a very simple way. However, I don't
09:14:44 believe I can use a yes or no to answer your question.
09:14:51 Q. Let me rephrase.
09:14:53 The purpose of Section 3 --

09:14:56 MR. BENNETT: If you can zoom out, Denver.
09:14:56 BY MR. BENNETT:
09:15:00 Q. -- of this user manual is to tell users, instruct them
09:15:04 on how to change the color settings in their display,
09:15:08 right?
09:15:09 A. It shows the functionality here. However, I don't
09:15:50 believe there's any teaching here for them to follow
09:15:53 "how-to" procedures.
09:16:01 MR. BENNETT: Can you blow up that screenshot,
09:16:04 please, Denver?
09:16:04 BY MR. BENNETT:
09:16:13 Q. Now, that's a screenshot from an ASUS monitor, isn't
09:16:18 it, Mr. Lin?
09:16:20 A. It appears so.
09:16:37 Q. Do you have any reason to doubt that this ASUS manual
09:16:40 is showing an ASUS On-Screen-Display screenshot?
09:16:48 A. The reason -- I said it appears so. However, I will
09:17:24 not be able to verify is because that we had several
09:17:29 versions for different period of time and for different
09:17:33 models. That's why I cannot tell for sure.
09:17:39 Q. Mr. Lin, we're talking about the 3 -- PA328 model right
09:17:44 now. Are you still with me?
09:17:48 A. That's right. What I am seeing right now on the screen
09:18:03 is the manual for the specific one, yes.
09:18:06 Q. Okay. So this is the menu screen for the PA328,

correct?
A. It appears as so. However, I have to explain here.
We had adopted two different procedures for this. One was a screenshot only. The other one was to rejoin everything. So I'm not sure which one this should be.
MR. BENNETT: Your Honor, I object and move to strike that answer as nonresponsive.
THE COURT: I'll sustain the objection.
MR. JOSHI: Your Honor, may I note a -- my response objection?
I believe he is just telling the truth answering the question.
THE COURT: I understand. He has given him multiple opportunities to respond, and I'll sustain the objection and strike the -- strike the response.
Ask your next question.
MR. BENNETT: Thank you, Your Honor.
BY MR. BENNETT:
Q. Let me try it this way, Mr. Lin. When the manual says --
MR. BENNETT: Back out to the subpoint, please, Denver.
BY MR. BENNETT:
Q. When the manual says set a desired color setting from this menu, "this menu" is referring to that screenshot,

09:20:06 right?
09:20:25 A. From what I can see on the screen, yes.
09:20:27 Q. Okay. And two up -- one up from the bottom -- or two
09:20:32 up from the bottom on that screenshot, there's a listing
09:20:36 for advanced settings.
09:20:38 Do you see that?
09:20:40 A. Yes, I can see that.
09:20:46 Q. Okay.
09:20:47 MR. BENNETT: Can you zoom back out, please, and
09:20:50 go to the advanced setting bullets?
09:20:50 BY MR. BENNETT:
09:20:55 Q. So what the manual is telling the user and what ASUS is
09:21:00 specifically telling and instructing users is that if you
09:21:04 want to adjust the 6-axis hue adjustment, you will find
09:21:10 that adjustment under the advanced setting menu, right?
09:21:33 A. Yes.
09:21:33 Q. Right. And that makes sense because this series of
09:21:39 products, the PA series, in this case, the PA328, is a
09:21:44 high-end monitor, right?
09:21:49 A. Instead of that, we actually defined it as a
09:22:08 professional series.
09:22:10 Q. Right. And professional series means you charge a lot
09:22:13 more for this than you would a different model that you
09:22:18 sell at Walmart, right?
09:22:39 A. We also have other gaming type of monitors, also pretty

expensive.

MR. BENNETT: Your Honor, I move to strike that answer as nonresponsive.

THE COURT: I'll sustain the objection and strike the response.

BY MR. BENNETT:

Q. Let me try it this way. The PA328 is a monitor -- is one of the monitors that costs the most that ASUS sells, it's one of the highest-priced monitors that ASUS sells, right?

A. My answer will be no.

Q. Your answer is no?

I just want to make sure I understood correctly. Your answer is, no, this is not one of the monitors that ASUS charged -- is one of the -- ASUS's higher-priced monitors.

A. Well, if you were just asking whether it's a one of those, my answer will be, yes, it was one of those higher-priced.

Q. Okay. And as one of those higher-priced models, the 6-axis control feature is a feature that ASUS specifically posts on its website and advertises to consumers, right?

A. The majority of these series were -- are equipted [sic] with this functionality.

09:25:16 MR. BENNETT: Your Honor, I move to strike that
09:25:18 answer as nonresponsive.
09:25:29 MR. JOSHI: May I please have the question read
09:25:32 back to me?
09:25:33 THE COURT: No, just rephrase the question, and
09:25:36 let's give him a opportunity to answer.
09:25:39 BY MR. BENNETT:
09:25:39 My question is, sir: The 6-axis control, hue,
09:25:44 saturation, is a feature ASUS specifically advertises to
09:25:49 these consumers for their use in ASUS display products,
09:25:56 right?
09:26:12 A. Yes, for these series.
09:26:32 Q. Okay. I want to look at one more of these series,
09:26:37 which is the PA329.
09:26:39 MR. BENNETT: Go to Plaintiff's Exhibit 69,
09:26:43 please, Denver.
09:26:43 BY MR. BENNETT:
09:26:57 Q. Can you see that okay, Mr. Lin?
09:26:59 A. Yes, I can.
09:27:05 Q. All right. This is another one of the professional
09:27:08 series, right? Professional Artist Series?
09:27:20 A. From the screen, yes.
09:27:22 Q. Okay. And this particular model, the PA329 has been
09:27:27 selling pretty good, hasn't it?
09:27:30 A. Well, I cannot answer that question because I am not a

09:27:46 sales.
09:27:48 Q. Do you remember when we took your deposition in
09:27:50 November of 2020, Mr. Lin?
09:28:06 A. Yeah, we did discuss yesterday that there was a
09:28:10 deposition like this, yes.
09:28:11 Q. And when you took that deposition, you swore to tell
09:28:15 the truth, didn't you, sir?
09:28:17 A. Yes.
09:28:25 Q. And you did tell the truth, right?
09:28:28 A. Right.
09:28:33 Q. And during that deposition, we asked you if you were
09:28:38 familiar with the PA329 series monitor. Do you remember
09:28:44 what your answer was?
09:29:01 A. Excuse me. I don't think that I remember what my
09:29:04 answer was.
09:29:11 Q. On page 17, lines 21 through 24, your answer was:
09:29:15 "This is one of the monitor in our PA series. It's been
09:29:19 selling pretty good."
09:29:37 And you stand by that testimony now, don't you?
09:29:45 A. I forgot how I answered at that time.
09:29:48 Q. That wasn't my question, sir. My question is: You
09:30:00 stand by that testimony today in front of this jury, right?
09:30:21 A. Of course. And I told you the truth during the
09:30:27 deposition taken of me. I just don't recall right now what
09:30:33 I may have said in that deposition.

09:30:37 Q. But your deposition testimony in November of 2020 was
09:30:42 different from what you first told me today in front of
09:30:45 this jury, wasn't it?
09:31:07 A. I'm sorry. I really forgot what I said during the
09:31:12 deposition held on November 30th.
09:31:16 Q. Fair enough.
09:31:20 MR. BENNETT: Let's, Denver, go to Plaintiff's
09:31:24 Exhibit 69, to page, Bates 121, please.
09:31:24 BY MR. BENNETT:
09:31:37 Q. And I don't want to belabor the point, Mr. Lin, and I'm
09:31:41 not going to spend a lot of time here, but can we agree
09:31:45 that the instructions here are very similar to the manual
09:31:48 we just looked at, the PA328?
09:32:07 A. Yes, similar.
09:32:08 Q. Okay.
09:32:15 MR. BENNETT: Let me flip to page 127, Denver,
09:32:21 please.
09:32:21 BY MR. BENNETT:
09:32:23 Q. It's another one of those troubleshooting FAQs from the
09:32:27 monitor manual.
09:32:28 So we talked about one of these toward the end of
09:32:53 the day yesterday, and I just wanted to review quickly --
09:32:53 just, again, review what the purpose is and then one
09:32:53 specific or two -- a couple of pieces of this particular
09:32:54 FAQ.

09:32:54 So, first, we still agree today, don't we,
09:32:55 Mr. Lin, that the purpose of the troubleshooting FAQ is for
09:33:00 ASUS to instruct purchasers, users of the display on how to
09:33:04 solve potential problems they may run into with their
09:33:08 display product?
09:33:39 A. Yes, that's the purpose, right.
09:33:42 Q. Okay. And, again, for the sake of time, I want to skip
09:33:47 just down to the third one from the bottom: Screen image
09:33:52 has color defects. And we talked about this yesterday, but
09:34:10 what ASUS is telling users to do here is if their screen
09:34:14 has color defects in it, they should adjust the RGB control
09:34:23 settings, right?
09:34:39 A. Yes.
09:34:39 Q. All right. I want to take you to a little different
09:34:46 product now.
09:34:47 MR. BENNETT: Denver, go to 26-76.
09:34:47 BY MR. BENNETT:
09:35:15 Q. Do you see the user guide for the VG248?
09:35:25 A. From the screen, I can see it.
09:35:26 Q. Okay. And this particular display model is what's
09:35:34 known as a 3-axis model, right?
09:35:58 A. No.
09:35:58 Q. Do you know what a 3-axis model is, Mr. Lin?
09:36:03 A. I know the difference between 3-axis from 6-axis.
09:36:13 Q. Okay. In a 3-axis display, the color inputs are red,

09:36:21 green, and blue, right?
09:36:30 A. Yes, for the models using 3-axis color control.
09:36:46 Q. Okay.
09:36:47 MR. BENNETT: Let's skip, Denver, to 6997, please.
09:36:47 Right near that feather -- actually, sorry, just blow up
09:36:47 that whole -- thanks.
09:36:47 BY MR. BENNETT:
09:37:25 Q. Can you see that Section 2 under Color, Mr. Lin?
09:37:25 A. Yes.
09:37:27 Q. All right. In this section under the heading of
09:37:38 Number 2 Header, ASUS tells its users you can adjust
09:37:42 brightness, contrast, saturation, color temp, skin tone,
09:37:47 and smart view from this menu, right?
09:38:12 A. Yes, I can see that.
09:38:13 Q. All right. And "this menu" means the menu adjacent to
09:38:20 those colors, the one pictured there in the manual?
09:38:32 A. It appears so.
09:38:36 Q. Okay. I want to focus now on -- there's this little --
09:38:43 looks like a feather to me down below. And just for your
09:38:56 benefit, I'll read this so the translator can translate it
09:38:59 for you: In the user mode, colors of R, red; G, green; and
09:39:05 B, blue, are user configurable?
09:39:33 A. Yes.
09:39:33 Q. And then it says: The adjusting range is from 0 to
09:39:42 100.

09:39:43 A. Yes.
09:39:44 Q. So if an ASUS user who purchased this particular model,
09:39:48 the VG248, followed these instructions, they can put the
09:39:56 monitor in user mode and adjust R from 0 to 100?
09:40:22 A. Yes.
09:40:22 Q. They could adjust green from 0 to 100?
09:40:30 A. Yes.
09:40:33 Q. And they could adjust blue from 0 to 100?
09:40:40 A. Yes.
09:40:44 Q. All right. And then as we saw before with this 6-axis
09:40:49 manual --
09:40:50 MR. BENNETT: Go to 7001, please.
09:40:50 BY MR. BENNETT:
09:40:57 Q. -- we have a troubleshooting FAQ in this manual. Can
09:41:10 you see that?
09:41:11 A. Yes, I can see that.
09:41:15 Q. All right. And just like before, in this three-color
09:41:20 product, RGB, ASUS tells the user that if they have
09:41:25 problems -- if the screen image has color defects, one of
09:41:30 the solutions is to adjust the RGB color settings to
09:41:35 improve the color defects, right?
09:42:12 A. Well, hard for me to answer that question. So your
09:42:15 question is actually referring to the white balance
09:42:18 feature.
09:42:22 Q. Well, let's -- let's go back. Let's go back to

09:42:30 Exhibit 15.
09:42:39 MR. BENNETT: Page 311 or 29, Denver.
09:42:39 BY MR. BENNETT:
09:42:52 Q. We talked about this one already, right? This is the
09:42:56 same Troubleshooting FAQ we just saw, didn't we?
09:43:02 A. Yes.
09:43:08 Q. All right. And in this 6-axis monitor, users can
09:43:13 experience color defects in their monitors, right?
09:43:18 A. To this specific question, my answer would be no.
09:43:36 Q. My specific question was: Users of 6-axis products can
09:43:43 experience color defects with their monitors?
09:44:01 A. To this specific question, my answer remains no.
09:44:13 Q. Just so I'm clear, my specific question is, you're
09:44:17 saying, no, ASUS users don't experience color defects with
09:44:25 their monitors?
09:44:30 MR. JOSHI: Objection, that's a
09:44:49 mischaracterization of his testimony.
09:44:50 THE COURT: Overruled.
09:45:13 A. Well, I can explain a little here. To my
09:45:18 understanding, this cannot be called a color defect.
09:45:24 MR. BENNETT: Your Honor, I move to strike that
09:45:27 answer as nonresponsive.
09:45:29 THE COURT: I'm going to overrule that. I --
09:45:31 you can rephrase the question, perhaps, but I don't think
09:45:34 it's --

09:45:34 MR. BENNETT: Okay.
09:45:35 THE COURT: -- nonresponsive.
09:45:35 BY MR. BENNETT:
09:45:36 Q. Let me try this -- let me try it this way.
09:45:38 MR. BENNETT: Denver, take the exhibit down, please.
09:45:38 BY MR. BENNETT:
09:45:55 Q. Okay. There's no exhibit up. I'm talking just generally.
09:45:59 When a user buys --
09:46:00 MR. BENNETT: Go ahead, Ms. Josh. I -- excuse me. Go ahead.
09:46:02 BY MR. BENNETT:
09:46:05 Q. When a user buys an ASUS product, one of the problems that they can encounter is color defects in their monitors, right?
09:46:14 A. It's probably the user just do not like the color -- the color setting because they dislike the color, so they wish to make adjustments.
09:46:17 Q. Oh, sure. I understand that. Sometimes users want to adjust the colors on their monitor to suit their -- whatever it is that they want. They want to enhance one particular color or another, right?
09:46:22 A. That's right. That's right, that question.
09:46:40 Q. Okay. But my questions are a little bit different.
09:46:55
09:47:00
09:47:05
09:47:09
09:47:13
09:47:17
09:47:24
09:47:38

09:47:42 Let me try it this way. Sometimes with prolonged
09:47:46 use of a monitor, the colors can skew, or you can get a
09:47:51 defect in a particular color type, right?
09:48:11 A. I do not deny that there is a possibility for that.
09:48:16 Q. Okay. And so when users experience that problem, they
09:48:23 like to go to ASUS's user manual to find solutions to that
09:48:31 problem, right?
09:48:32 A. Well, some users would, but some other users may have
09:48:56 some basic knowledge of how to do that themselves.
09:49:00 Q. Oh, sure. But some users -- we agree, some users will
09:49:06 go back to the user manual, right?
09:49:08 A. I cannot -- I cannot deny that, that it's true that
09:49:29 some users would refer to the manual.
09:49:33 Q. And for those users, ASUS provides the Troubleshooting
09:49:39 FAQ, right?
09:49:42 A. Well, they can go to the troubleshooting section to
09:49:58 resolve the problems.
09:49:59 Q. And users may experience problems with a variety of
09:50:04 colors, whether it's red, green, or blue, right?
09:50:08 A. Well, my answer would be, yes, because each individual
09:50:35 user, they may have their own requirement.
09:50:40 Q. And so color defects aren't limited to the color of
09:50:45 white, right? Could be other colors?
09:50:47 A. Well, from a professional perspective, a white color
09:51:11 would be used for references.

09:51:14 Q. Okay. Last question for now, Mr. Lin.

09:51:24 ASUS users choose ASUS products because ASUS supplies options for them to customize the color settings on their monitors, right?

09:51:42 A. Well, I will say this 3-axis or 6-axis feature are one of the common features that ASUS provide. However, the reason ASUS users choose ASUS products was not only for that.

09:52:38 Q. Oh, I agree. There's lots of other reasons. But that's at least one of their reasons or a common reason?

09:52:44 A. To this specific question, I can say, yes.

09:53:05 Q. All right. And that includes --

09:53:08 MR. BENNETT: If you put up 14A again, please.

09:53:08 BY MR. BENNETT:

09:53:21 Q. -- features like color independent control?

09:53:44 A. Are you asking me whether this specific feature, color independent control, is one of the features contained in ASUS products?

09:53:59 Q. It's a little different than that. It's one of the features that ASUS users like about ASUS products.

09:54:09 A. Well, that is one of our features for our product. However, I do not know how to answer a question regarding what's the customers' preference.

09:54:48 Q. Well, is it safe to say that ASUS markets features that it thinks customers like?

09:54:57 A. Because I'm not in charge of the marketing section,
09:55:28 that's why I cannot answer that question either.
09:55:32 Q. Fair enough, Mr. Lin. Thank you for your time.
09:55:35 MR. BENNETT: I'll pass, Your Honor.
09:55:37 THE COURT: Cross-examination?
09:55:38 MR. JOSHI: Yes, Your Honor. Cross-examination
09:55:39 and also my direct here, Your Honor.
09:55:43 MR. BENNETT: We agreed for the sake of time to
09:55:46 allow that.
09:55:51 THE COURT: Fair enough.
09:55:58 CROSS-EXAMINATION
09:55:58 BY MR. JOSHI:
09:55:59 Q. Good morning, Mr. Lin.
09:56:10 A. Good morning.
09:56:10 Q. What time is it in Taipei?
09:56:13 A. 10:56 p.m.
09:56:15 Q. Well, thank you. Thank you for staying up today.
09:56:22 A. You're welcome.
09:56:23 Q. Would you tell us about your academic background?
09:56:30 A. I graduated from National Taiwan University,
09:56:53 Electronics Research Institute. I have a master degree.
09:57:00 Q. And you started working at ASUS in 1996. Do you recall
09:57:04 saying that yesterday?
09:57:12 A. Yes.
09:57:13 Q. And since you joined ASUS in 1996, have you always been

09:57:21 in an engineering function with the company?
09:57:31 A. I have always been in an engineering function with the
09:57:45 company.
09:57:46 Q. And when you first started at the entry level at ASUS,
09:57:51 what was your title?
09:58:00 A. Engineer.
09:58:03 Q. And what is your job title now?
09:58:06 A. Division director.
09:58:14 Q. Are there engineers that work for you, meaning direct
09:58:21 reports to you?
09:58:22 A. Yes.
09:58:29 Q. How many engineers report to you directly?
09:58:33 A. Seven.
09:58:43 Q. Do you have any function in customer service at ASUS?
09:59:01 A. No.
09:59:01 Q. Do you have any function in the department at ASUS that
09:59:07 writes technical documents or user guides -- strike that
09:59:11 question. I didn't mean to say...
09:59:13 Do you have any function in the ASUS department
09:59:19 that writes user guides?
09:59:21 A. No.
09:59:37 Q. Yesterday, there was a discussion between you and
09:59:45 Mr. Bennett about companies called ODMs.
09:59:51 Do you recall that?
10:00:04 A. Yes.

10:00:05 Q. Is ODM an acronym for original device manufacturer?
10:00:19 A. Yes.
10:00:22 MR. JOSHI: May I please have DX-139?
10:00:22 (Off the record discussion.)
10:00:22 BY MR. JOSHI:
10:01:17 Q. And so I see a list here. Do you see a company named
10:01:26 SolidPro Technology Corporation?
10:01:34 A. Yes.
10:01:35 Q. Then if we go down a little bit, do you see a company
10:01:39 called Coretronic Corporation?
10:01:50 A. Yes.
10:01:50 Q. And if we go down a few more rows, there is a Qisda
10:02:11 Corporation?
10:02:11 A. Yes.
10:02:17 MR. JOSHI: Can you keep scrolling down slowly?
10:02:17 BY MR. JOSHI:
10:02:22 Q. Then there is a TPV Technology, Limited. Do you see
10:02:28 that?
10:02:31 A. Yes.
10:02:32 Q. And are all of these companies ODMs?
10:02:36 MR. BENNETT: Objection. Objection, leading,
10:02:39 foundation.
10:02:40 THE COURT: Can you rephrase the question so that
10:02:42 it's not leading?
10:02:42 BY MR. JOSHI:

10:02:45 Q. What is the relationship between ASUS and these companies?
10:02:48
10:03:02 A. Our products were entrusted with those companies to manufacture.
10:03:07
10:03:09 Q. Is it your testimony, sir, that the products that ASUS sells are actually manufactured by these companies?
10:03:17
10:03:23 MR. BENNETT: Objection. Leading.
10:03:25 THE COURT: Sustained. Rephrase the question.
10:03:25 BY MR. JOSHI:
10:03:34 Q. You discussed some products with Mr. Bennett yesterday and today, correct, for example, PA328, PA329? Do you recall having that discussion?
10:03:39
10:03:51
10:04:07 A. Yes.
10:04:07 Q. Who makes those products for ASUS?
10:04:12 A. By those ODM suppliers here.
10:04:22 Q. And whose brand name is actually on the products?
10:04:37 A. The brand belongs to ASUS.
10:04:40 Q. In your job function, do you have interactions with ODMs?
10:04:49
10:04:50 A. Yes.
10:04:53 Q. You discussed several products with Mr. Bennett yesterday and today. Are you familiar with operations of those products?
10:05:03
10:05:06
10:05:08 A. Basically familiar.
10:05:25 Q. Okay.

10:05:29 MR. JOSHI: Can we please have P-262 -- 26-2.
10:05:29 BY MR. JOSHI:
10:05:56 Q. Mr. Lin, I'll represent to you this document is a user
10:06:01 guide for products C620A.
10:06:07 MR. BENNETT: Objection, Your Honor. Improper
10:06:10 predicate.
10:06:12 THE COURT: Can you lay a foundation for it,
10:06:15 Mr. Joshi?
10:06:15 MR. JOSHI: Sure.
10:06:15 BY MR. JOSHI:
10:06:18 Q. Mr. Lin, this document was produced in this litigation
10:06:21 by Lone Star, and it purports to be a user guide for a
10:06:26 product named C620a and a few other products.
10:06:32 MR. BENNETT: Your Honor, same objection.
10:06:34 Improper predicate.
10:06:36 THE COURT: I'm going to allow it.
10:06:37 MR. JOSHI: May I proceed, Your Honor?
10:06:39 THE COURT: You may.
10:06:40 MR. JOSHI: Okay.
10:06:43 Please scroll down to -- I'm sorry. Please wait.
10:06:43 BY MR. JOSHI:
10:06:48 Q. Are you familiar with the operation of the products
10:06:51 mentioned here?
10:06:54 A. I am familiar. However, I did not personally operate
10:07:09 it on each and every one before.

MR. JOSHI: Mr. Oliver, would you scroll down to the color menu? Could you make that bigger, please.
BY MR. JOSHI:
Q. Mr. Lin, can you see what's shown on this page?
A. Yes.
Q. If a user of this product wanted to adjust a hue or a saturation of a particular color, for example, red or green or blue, how would he do it?
MR. BENNETT: Objection. Foundation.
THE COURT: I'll allow it. Overruled.
A. For this specific model, the feature to allow users to make color adjustment for red, green, blue will not provide it.
BY MR. JOSHI:
Q. If you -- if you look at the user interface before you, do you see that saturation is mentioned there?
A. Yes.
Q. What saturation control is that?
A. We wish to provide a feature to adjust the saturation for the display.
Q. For which color?
A. Well, technically or theoretically it's not restricted any color, and all the color will be affected.
Q. Okay. So three rows below the user interface, do you see the mention of saturation, the adjusting range is from

10:10:46 0 to 100?
10:10:50 A. Yes.
10:11:00 Q. What will happen when the user tries to adjust the
10:11:06 saturation range from 0 to 100?
10:11:10 A. For all the colors, 0 means not intense and 100 means
10:11:43 very intensive.
10:11:49 Q. For which particular color?
10:11:51 A. It will affect all the colors.
10:12:00 Q. Do those colors include red?
10:12:07 A. Of course.
10:12:09 Q. Will those colors include green?
10:12:13 A. Of course.
10:12:16 Q. Will those colors include blue?
10:12:20 A. Of course.
10:12:26 Q. Will those colors include pink?
10:12:30 A. Yes.
10:12:34 Q. How about blueish colors, yellowish colors, magenta,
10:12:47 cyan, skin colors?
10:13:00 A. Yes, included.
10:13:02 MR. JOSHI: Mr. Oliver, could you scroll down a
10:13:04 little bit? Would you please pull up P-26-49.
10:13:04 BY MR. JOSHI:
10:13:30 Q. Mr. Lin, this document was produced to us by Lone Star
10:13:34 in this litigation. Are you familiar with the product that
10:13:38 is mentioned there?

10:13:58 A. Yes. This is one of our gaming monitors.
10:14:03 MR. JOSHI: Mr. Oliver, would you scroll down to the color menu.
10:14:06 BY MR. JOSHI:
10:14:39 Q. Mr. Lin, if the user of this product wanted to adjust either hue or saturation of a particular color, for example, a red or a green or a blue, how would he or she do it?
10:14:59 A. For this model, these adjustment functionality was not provided.
10:15:33 Q. Do you see saturation mentioned in the user interface?
10:15:50 A. Yes.
10:15:51 Q. What is that feature used to do?
10:16:04 A. To adjust the saturation for the output images of the monitors.
10:16:17 Q. For which colors?
10:16:19 A. All the colors.
10:16:26 Q. In the user interface, do you see a mention of brightness?
10:16:39 A. Yes.
10:16:40 Q. Is brightness different from hue or saturation?
10:16:46 A. Brightness is different from the color hue and saturation.
10:17:02 Q. Do you also see a mention of contrast in the user interface?
10:17:22

10:17:22 A. Yes.
10:17:23 Q. Is contrast different -- strike that.
10:17:31 Is contrast different from hue or saturation?
10:17:38 A. That's right. They are different indicators.
10:17:51 Q. Do you see a mention of color temp in the user
10:18:03 interface?
10:18:03 A. Yes.
10:18:08 Q. Is color temp different from hue or saturation?
10:18:18 A. Hue temp, usually referring to white color, is
10:18:42 temperature only, and that's why it's different from the
10:18:46 hue and the saturations for other colors.
10:18:53 Q. What is brightness?
10:18:55 A. What is brightness? I can say that in a coordinate
10:19:30 system, the brightness and colors, they are separated. So
10:19:37 I will say the brightness is a different indicator from the
10:19:40 other two.
10:19:45 MR. JOSHI: Can you scroll down a little bit,
10:19:48 Andrew? A little bit more.
10:19:48 BY MR. JOSHI:
10:19:59 Q. Mr. Lin, when ASUS ships its products to its customers,
10:20:08 meaning puts them in a box, are they precalibrated?
10:20:19 A. Well, after the products are out of ODM manufacturers,
10:20:44 we will not do any calibrations.
10:20:48 Q. Who does the calibrations?
10:20:50 A. Well, after the users purchase the product, if they

10:21:07 believe there is a need, they need to figure out a way to
10:21:10 do the calibration.
10:21:12 Q. Does ASUS require its customers to do calibration?
10:21:35 A. We do not require the users to do the calibration. We
10:21:46 only provided options for them to do so if they wish to.
10:21:49 Q. When a consumer purchases an ASUS product and pulls it
10:22:00 out of the box, is that product immediately ready for use
10:22:06 without calibration?
10:22:13 A. Yes.
10:22:32 Q. Now, Mr. Bennett showed you several user manuals
10:22:38 yesterday and today, correct?
10:22:47 A. Yes.
10:22:48 Q. Do you recall if Mr. Bennett showed you anywhere in any
10:22:53 user manual where a recommendation or a requirement for a
10:23:08 color calibration was made?
10:23:10 A. I don't recall I ever seen that.
10:23:34 MR. JOSHI: Could I please have P-26-76?
10:23:34 BY MR. JOSHI:
10:23:58 Q. Earlier today, do you recall having a conversation with
10:24:04 Mr. Bennett about VG248?
10:24:10 A. Yes.
10:24:16 Q. Are you familiar with this product?
10:24:26 A. Yes.
10:24:27 MR. JOSHI: Mr. Oliver, could you scroll down to
10:24:39 the color menu?

10:24:39 BY MR. JOSHI:
10:24:43 Q. Mr. Lin, do you need that a little more enlarged or can
10:24:47 you see it?
10:24:48 A. I can see it clearly.
10:24:53 Q. If a user of this product wanted to adjust hue or
10:25:05 saturation of a particular color, for example, a red, a
10:25:09 green, or a blue, how would he or she do it?
10:25:14 A. For this model, such functionality was not provided.
10:25:41 Q. Below the user menu, about two lines down, do you see a
10:25:51 mention of saturation, the adjusting range is from 0 to
10:25:55 100?
10:25:57 A. Yes.
10:26:05 Q. If a user of this product were to adjust the saturation
10:26:11 range from 0 to 100, what would happen?
10:26:25 MR. BENNETT: Objection. Foundation.
10:26:27 THE COURT: Overruled.
10:26:39 A. Well, from 0 to 100 means that the color will be less
10:26:47 intensive to very intensive.
10:26:55 BY MR. JOSHI:
10:26:55 Q. Which color or colors is that feature meant to adjust?
10:27:15 A. All the colors on the display will be changed.
10:27:20 Q. Can that feature be used to adjust saturation of just
10:27:30 one color but not saturation of other colors?
10:27:34 A. No.
10:27:55 MR. JOSHI: Madam Interpreter, could you say a bit

louder?

THE INTERPRETER: No.

MR. JOSHI: Thank you.

Andrew, could you scroll down just a little bit more? Okay.

BY MR. JOSHI:

Q. Mr. Lin, do you recall Mr. Bennett pointed to this sentence on this page: In the user mode, colors of R, red; G, green; and B, blue; are user configurable. The adjusting range is from 0 to 100.

Do you see that?

A. I can see that.

Q. What range is being referred to there?

A. It to represent the range for, say, color red, it can be from 0 to 100 value.

Q. For the color red, what specifically is being adjusted?

A. To adjust the value of gain. In English, it's the word "gain."

Q. So to clarify, the phrase "adjusting range is from 0 to 100" refers to gain, G-A-I-N?

A. Yes.

Q. Is gain same or different from hue and saturation?

A. They're different.

Q. What is gain?

A. Well, it represented the value for the voltage to drive

10:31:48 the color red.
10:31:53 MR. JOSHI: May I please have P-26-74?
10:31:53 BY MR. JOSHI:
10:32:16 Q. Mr. Lin, this exhibit, Plaintiff's 26-74, was produced
10:32:21 in this litigation by Lone Star.
10:32:23 Are you familiar with a product named VG245?
10:32:31 A. Yes.
10:32:46 MR. JOSHI: Mr. Oliver, could you scroll down to
10:32:49 the color menu?
10:32:49 BY MR. JOSHI:
10:33:11 Q. Can you see the user interface there, Mr. Lin?
10:33:16 A. Yes.
10:33:18 Q. If a user of this product wanted to adjust hue or
10:33:33 saturation of a particular color, for example, a red, a
10:33:37 blue, or a green, how would he or she do it?
10:33:41 A. The same answer. For this particular model, such
10:34:07 functionality was not provided.
10:34:09 Q. You had a conversation with Mr. Bennett and a
10:34:23 phrase "6-axis control" was used. Do you recall?
10:34:40 A. Yes.
10:34:41 Q. The products that you and I discussed so far, do any of
10:34:46 them have 6-axis control?
10:34:57 A. No.
10:35:03 Q. So let's take a look at one product that does have
10:35:10 6-axis control.

10:35:23 MR. JOSHI: Mr. Oliver, would you mind pulling
10:35:30 up 14A? Could you scroll down to where user interface
10:35:53 shows up? I believe it's toward the end.
10:35:53 BY MR. JOSHI:
10:35:58 Q. Mr. Lin, can you see this user interface okay?
10:36:02 A. I can see it, but the picture is very small.
10:36:12 Q. How about now?
10:36:18 A. Yes, now.
10:36:23 Q. Now, Mr. Bennett would -- would discuss with you
10:36:28 something, if -- strike that, please. Sorry.
10:36:32 Mr. Bennett discussed with you a feature called
10:36:37 Advanced Setting. Do you recall?
10:36:45 A. Yes.
10:36:45 Q. And through this Advanced Setting, is a user allowed to
10:36:52 select either a 6-axis hue or a 6-axis saturation?
10:37:10 A. Yes.
10:37:11 Q. And then after the user selects either a 6-axis hue or
10:37:16 a 6-axis saturation, is the user allowed to select a
10:37:19 specific color?
10:37:20 A. For what we offered here, there were six options of the
10:37:54 axis for the user to pick from. They are R, G, B, C, M, Y.
10:38:02 Q. Does R stand for red?
10:38:07 A. Yes.
10:38:08 Q. Do G, B, C, M, and Y stand for green, blue, cyan,
10:38:16 magenta, and yellow?

10:38:18 A. Yes.
10:38:27 Q. And once the user selects a color, for example red, he
10:38:37 and she -- he or she can then select a value such as 50,
10:38:41 correct?
10:38:42 A. Yes.
10:38:55 Q. And none of the products that you and I discussed have
10:39:00 this 6-axis menu, correct?
10:39:10 A. Well, other than this particular one we are discussing
10:39:24 about now, none of those we discussed before are -- is the
10:39:33 6-axis ones.
10:39:34 MR. JOSHI: May I please have DX-87, please?
10:39:38 THE COURT: Mr. Joshi, when you get to a good
10:39:40 stopping point, I think it's probably time.
10:39:43 MR. JOSHI: We can stop now.
10:39:44 THE COURT: Is now an okay time?
10:39:46 MR. JOSHI: Yes.
10:39:47 THE COURT: All right. Ladies and gentlemen of
10:39:47 the jury, we're going to take our morning recess at this
10:39:50 time.
10:39:51 As a reminder to you, please don't discuss the
10:39:54 case with anyone, including among yourselves, until all of
10:39:58 the evidence has been presented and I've instructed you on
10:40:01 the law.
10:40:02 We'll be in recess about 15 minutes.
10:40:06 COURT SECURITY OFFICER: All rise.

10:40:07 (Jury out.)

10:40:41 THE COURT: Okay. Please be seated.

10:40:44 I do want to hear from the parties about the motion for mistrial or a curative instruction that was filed last night.

10:40:59 Mr. Lee [sic], you can stand down.

10:41:02 Mr. Bennett?

10:41:12 MR. JOSHI: Your Honor, his name is Lin, L-i-n.

10:41:14 THE COURT: I'm sorry. Thank you.

10:41:19 MR. BENNETT: Thank you, Your Honor.

10:41:20 May I take my mask off? Is that all right?

10:41:20 THE COURT: Yes, of course.

10:41:26 MR. BENNETT: For the sake of the mic, I probably ought to go to the podium.

10:41:27 Yesterday during opening, Mr. Oliver violated this Court's claim construction order. Very last paragraph of that order prohibited the parties, Lone Star followed it, from referring directly or indirectly to each other's claim construction positions in the presence of the jury.

10:41:31 It continues on. We quote it in our motion. Your Honor is familiar with it.

10:41:40 At some point, Mr. Oliver gave the jury -- not just bad facts. We can deal with bad facts. That's what trial is for. That's what cross-examination is for. That's what experts are for. He gave them the wrong legal

10:41:43

10:41:47

10:41:58

10:42:00

10:42:04

10:42:06

10:42:09

10:42:13

10:42:16

10:42:19 standard, and he infected -- we're very concerned that he
10:42:23 infected the jury with not just an improper burden of proof
10:42:26 but the improper standard that violates the Court's order,
10:42:29 in fact expresses a view of claim construction that this
10:42:34 Court expressly rejected.
10:42:35 And that view was Ducharme, and by extension Lone
10:42:41 Star, has to show that you can change red without changing
10:42:45 any other colors.
10:42:45 And we cited several portions of the claim
10:42:48 construction order that -- the rationale of the order that
10:42:55 rejected that.
10:42:56 Page 14, the Court says: To the extent Defendants
10:42:59 argue Claim 1's identifying step is limited to identifying
10:43:03 input image pixels that have the exact individual cover --
10:43:08 color previously selected, they are incorrect.
10:43:12 It continues on, on Page 14 still: Pixels are
10:43:14 identified as having red when they satisfy logical
10:43:17 conditions, not when they correspond to a particular color
10:43:21 point.
10:43:22 Page 15 -- excuse me.
10:43:25 Page 16: When it discusses the claim term without
10:43:28 affecting the hue or the saturation of any other individual
10:43:31 color in the remaining plurality of input image pixels,
10:43:40 rejects another similar argument by the Defendant that's
10:43:43 echoed in Mr. Oliver's assertions to the jury. And it

10:43:47 continued on. It's not just that one isolated statement.
10:43:52 We cited other portions to the Court in our
10:43:54 motion. I won't belabor it. We're on a 15-minute recess.
10:43:58 The last one is on Page 24: Defendant's
10:44:00 interpretation would require all input pixels before
10:44:05 transformation to be an RGB format.
10:44:05 This isn't a matter that a curative instruction,
10:44:09 in our view, really probably can fix. And the reason for
10:44:12 that is the jury saw -- it wasn't just the statement but
10:44:16 the demonstration along with the statement.
10:44:17 THE COURT: So there was an demonstration, and an
10:44:20 objection was lodged by Mr. Saba, but the argument you're
10:44:25 making now wasn't made at the time by Mr. Saba or anyone
10:44:28 else. Why is this argument not waived?
10:44:32 MR. BENNETT: The reason it's not waived is we
10:44:35 objected at the appropriate time before --
10:44:37 THE COURT: You objected to the demonstration but
10:44:41 not -- an objection was not made on the basis of the
10:44:43 argument you're making now.
10:44:44 MR. BENNETT: The dem -- well, two things. One,
10:44:46 we objected to the demonstration. The demonstration then
10:44:50 went, and Mr. Oliver got the statement out before we
10:44:53 could -- before we could object. And we were put in the
10:44:55 awkward position of having -- after the Judge had already
10:44:59 overruled our objection, to then standing up again and

saying, Judge, you just overruled us. Now we're going to go back for more in front of the jury --

THE COURT: I understand -- I understand your hesitancy in doing so, but there wasn't -- there was no argument made outside the presence of the jury after openings were made, or really, frankly, at any course during the day.

The first time this argument was made was close to midnight last night when the motion was filed. So it's just a new one on me. And I'm not -- I guess I'm just curious what -- why you all didn't object following Mr. Oliver's opening.

MR. BENNETT: Mr. Saba's statement was "that ship has sailed," or, in other words, the bell can't be unrung. And I don't think that's a waiver as much as just an expression of that's happened. Now what do we do about it?

We got the daily transcript. We wanted to see what the statement actually was before we did something this drastic to see if the harm was as bad as we thought it may be, and it was.

We thought maybe the curative instruction, in light of what we'd heard, maybe it took care of it, but in re-reading the transcript, we don't think that it does. An instruction that attorneys don't provide evidence doesn't cure the wrong legal standard infecting the jury's mind

about what infringes and what does not.

THE COURT: Well, not to put too fine a point about it, but whatever Mr. Saba said, whether it was Versata said, whether it was about, you know, the ship has sailed or the moment has passed or something like that, I thought, at least in my mind, that was referring to the fact that a demonstration had occurred over your objection, but, again, no argument was made at the time.

So I understand it's maybe, you know, too fine of a point here, but I just, you know -- anyway, is that your argument? I'll be glad to hear from --

MR. BENNETT: The last point we'll make is to Your Honor's point. Yes, if possible, on a mistrial, but a curative instruction is always warranted upon request. Your Honor has discretion to grant it.

And in light of the prejudice that we've set forth in the motion, at least a curative instruction should be given to let the jury know what they saw and the -- and the legal assertion Mr. Oliver made is not accurate and that they should wipe from their minds any prejudice they may have incurred about our infringement position on that.

THE COURT: Thank you, Mr. Bennett.

Mr. Oliver.

MR. OLIVER: Yes, Your Honor. Defendant does agree that any objection was waived. But even putting

aside the -- the waiver here, nothing that was said violated the claim construction order. The claim construction order talked about the different colors and made reference to a -- an equation, an inequality. And I said a color having red is one where the red component is greater than the blue component and the red component is greater than the green component. I made reference to two colors, yellow and magenta.

In our opposition, we attached a portion of -- this is ECF 215. We attached a portion from Plaintiff's expert's report in which he shows magenta and yellow towards the bottom, and he clarifies the color values. And he says red is 255, and blue is 255.

In that instance, red is not greater than blue so this is not a red color. It's a different color. And then I adjusted red, and this different color changed.

Same with yellow. In this report, he shows yellow as 250 -- or red as 255 and green as 255. Red is not greater than green. It's equal to green.

Under the claim construction order, that's a different color. And I mentioned and showed that yellow changed. Nothing violated the claim construction order, Your Honor.

THE COURT: When the -- tell me when the -- who the infringement experts are and when their testimony is

10:49:46 scheduled for.

MR. OLIVER: The Plaintiff --

MR. BENNETT: Sorry. Dr. Ducharme will testify following Mr. Lin.

THE COURT: This afternoon or today?

MR. BENNETT: Yes.

Mr. Oliver.

MR. OLIVER: Yes, and our -- the Defendant's expert is Dr. Stevenson, and I believe he is the second or third witness in the Defense case.

THE COURT: Okay. Mr. Bennett, let me have you respond to Mr. Oliver's comments.

MR. BENNETT: So if we're going to talk about testing data, that's fine. If that were what opening were limited to, I wouldn't be here. That's not what it's limited to.

What Mr. Oliver said directly reflects the arguments this Court rejected. It is the wrong standard.

So we ask that the Court at least grant a limiting instruction or a curative instruction that tells the jury that what was said was wrong, that if it tipped the scales at all, that they ought to wipe them clean and everybody deserves a fresh start and Dr. Ducharme can testify and we'll take that result. But what we can't have is the jury living with the wrong standard in their head as though

Mr. Oliver were the law.

THE COURT: I totally agree with you, Mr. Bennett. However, what Mr. Oliver is saying is that the test reflected testimony that their expert is going to offer that, at least in his argument, does not argue against the Court's claim construction order. And, you know, we'll see whether the testimony of ASUS's expert is -- is that or not.

But I have to tell you, Mr. Oliver, I am considerably troubled by the argument you made. I did let the demonstration go forward. Candidly, I think that was a mistake in my part -- on my part. I'm not sure that it rose to the level of any real prejudice here. At least based on the arguments the parties have made so far, I certainly don't think it rises to the level of a -- of any prejudice that requires a mistrial here, that creates any unfairness, but I -- I am considering whether a curative instruction is necessary. I would like to hear what the expert's testimony is.

So I will say this, Mr. Oliver. I don't think you should do demonstrations where counsel for the Plaintiff cannot see what you are doing or indicating to the jury, and certainly not where I cannot see.

MR. OLIVER: Okay. Your Honor, we -- we -- first, one point of clarification on what you stated. The portion

10:52:29 of the expert report that we attached and that I just
10:52:32 referenced was actually based on what the Plaintiff's
10:52:36 expert said. So we were relying on his evaluation.
10:52:40 THE COURT: That's fair enough. We'll certainly
10:52:43 be in a better position after we hear Dr. Ducharme's
10:52:48 testimony this afternoon.
10:52:48 MR. OLIVER: And we --
10:52:48 THE COURT: And if I think it's appropriate, I
10:52:52 will give a curative instruction on this at the end of the
10:52:54 day today, and you can cross him on it.
10:52:57 MR. OLIVER: And we will have a demonstration in
10:52:59 the cross or in the impeachment that uses a monitor that we
10:53:04 will need to be able to show the witness and the jury, and
10:53:08 it has to --
10:53:08 THE COURT: As long as Mr. Bennett can see it and
10:53:11 as long as I can see it, you know, that at least goes --
10:53:15 that at least deals with my main objection about how the
10:53:19 demonstration yesterday afternoon unfolded. Mr. Bennett
10:53:22 has to be able to see it, as do I.
10:53:25 MR. OLIVER: Your Honor, it has to be on the
10:53:27 monitor. We're not able to project it on all the monitors.
10:53:31 So perhaps -- I have been in another courtroom where the
10:53:34 Judge has come down and sat in the gallery or sat in the
10:53:39 jury box so they could see the demonstration, unless you
10:53:43 want us to try and turn the monitor back and forth.

10:53:45 THE COURT: We'll work on that. We'll see --
10:53:47 MR. OLIVER: Okay. Thank you, Your Honor.
10:53:48 THE COURT: Okay. We'll take a short recess.
10:53:51 COURT SECURITY OFFICER: All rise.
10:53:58 (Recess.)
11:10:38 COURT SECURITY OFFICER: All rise.
11:10:46 THE COURT: Okay. Let's have the jury brought in.
11:10:51 (Jury in.)
11:11:16 THE COURT: Please be seated.
11:11:21 All right, Mr. Joshi. You may continue.
11:11:23 MR. JOSHI: Thank you, Your Honor.
11:11:23 BY MR. JOSHI:
11:11:38 Q. Welcome back, Mr. Lin. I understand it's past midnight
11:11:49 where you are. How are you doing?
11:11:51 A. I'm okay.
11:12:00 Q. All right. So we'll look at a few more manuals now,
11:12:05 then I have a couple more questions after that.
11:12:10 MR. JOSHI: Mr. Oliver, could you please bring up
11:12:20 DX-87?
11:12:20 BY MR. JOSHI:
11:13:14 Q. Mr. Lin, are you familiar with operation of a product
11:13:18 known as PG278QR?
11:13:26 A. Yes.
11:13:33 MR. JOSHI: Mr. Oliver, will you please scroll
11:13:36 down to the color menu?

11:13:36 BY MR. JOSHI:
11:13:55 Q. Mr. Lin, is this user interface different from the
11:14:03 6-axis user interface we looked at in the last document?
11:14:10 A. This one, as featured, was 3-axis functionality, not
11:14:36 the 6-axis functionality.
11:14:41 Q. If the user of this product wanted to adjust hue or
11:14:51 saturation of a particular color, for example, a red, a
11:14:54 green, or a blue, how would he or she do it?
11:15:19 A. For this model, we did not provide such functionality,
11:15:24 though.
11:15:25 MR. JOSHI: Mr. Oliver, would you mind going to
11:15:28 the top of this document? We see there's an index. It
11:15:34 would be the second page.
11:15:34 BY MR. JOSHI:
11:15:55 Q. So, Mr. Lin, are your ODMs located in the United States
11:16:06 or outside the United States?
11:16:08 A. Outside the United States.
11:16:21 Q. Are the factories of your ODMs located inside the
11:16:34 United States or outside the United States?
11:16:41 A. Outside the United States.
11:16:44 Q. Are the ASUS products made by the ODMs put into boxes
11:16:52 and packaged at the ODM factories?
11:16:57 A. Yes.
11:17:18 Q. Before ASUS products are put into boxes, are they
11:17:28 tested by the ODMs?

11:17:34 A. ODM manufacturers are responsible for testing.
11:17:54 Q. Before ASUS products are put in boxes, are they calibrated by ODMs?
11:18:07 A. Yes.
11:18:10 Q. Do all ASUS products come with user manuals in the boxes?
11:18:23 A. Generally speaking, now the physical copies of the manuals will not be provided. It can be downloaded.
11:18:35 Q. And by downloaded, you mean downloaded from the Internet?
11:18:50 A. Yes.
11:18:54 MR. JOSHI: Could I please have DX-88, please?
11:18:58 BY MR. JOSHI:
11:19:00 Q. Mr. Lin, are you familiar with the PG279 product?
11:19:10 A. Yes.
11:19:10 MR. JOSHI: Mr. Oliver, would you just scroll down one page -- or two pages to where the index is or table of contents? Please scroll down to where the color is.
11:19:25 BY MR. JOSHI:
11:19:31 Q. Now, Mr. Lin, you have looked at several user guides, and each time I have had to ask Mr. Oliver to scroll down to where the color user interface is. Do you see that the user manuals have many pages?
11:19:40 A. Yes.
11:19:43 Q. Do user manuals provide important -- strike that.
11:19:49
11:19:49
11:20:06
11:20:13
11:20:19
11:20:24
11:20:45
11:20:45

Do user manuals provide instructions for assembling the product?

MR. BENNETT: Objection. Leading.

THE COURT: Hold on just a moment. Can you rephrase the question to avoid the objection?

BY MR. JOSHI:

Q. What are the various types of instructions included in the user manuals?

A. I don't quite understand this question. I'm sorry.

Q. Okay. Let's -- let's go to this color user interface. Are you able to see it, sir?

A. Yes, I can.

Q. In this PG279 product, if a user wanted to adjust hue or saturation of a particular color, for example, red, green, or blue, how would he or she do it?

A. Same answer. On this particular model, the functionality was not provided.

Q. The saturation feature shown in that user interface, is that for adjusting saturation of one color, some colors, or all colors?

A. All the colors can be adjusted.

Q. Together or individually?

A. All together.

Q. How many different colors are shown on ASUS's monitors?

A. In the typical models of our products, they would be

11:24:23 over 100,000.
11:24:26 Q. Did you say 100,000 different colors?
11:24:37 A. Yes.
11:24:39 MR. JOSHI: Mr. Oliver, may I have 89 -- DX-89
11:24:46 brought up?
11:24:46 BY MR. JOSHI:
11:24:57 Q. Mr. Lin, are you familiar with a VG245 product?
11:25:08 A. Yes.
11:25:13 MR. JOSHI: Mr. Oliver, could you go to the color
11:25:16 user interface? Actually, go back up a little bit, Andrew.
11:25:31 Would you go up to where -- go up to...
11:25:55 BY MR. JOSHI:
11:26:10 Q. Mr. Lin, is this product designed to be connected to
11:26:17 all of these various cables shown here?
11:26:33 A. Yes.
11:26:33 Q. Does ASUS require that its customers use all of those
11:26:47 cables?
11:26:59 A. No.
11:26:59 Q. Then why are they shown there?
11:27:04 A. Well, as needed, the users would come to the menu to
11:27:26 check the references about what type of cables can be
11:27:31 connected.
11:27:35 Q. If the users choose not to use several of these cables,
11:27:43 would the monitor still function normally?
11:27:46 A. No.

11:28:06 Q. Let me reask my question.
11:28:10 The users -- do the users have to use all these
11:28:16 cables?
11:28:19 MR. BENNETT: Objection. Leading.
11:28:22 THE COURT: Can you rephrase the question?
11:28:26 MR. JOSHI: Sure.
11:28:26 BY MR. JOSHI:
11:28:31 Q. Which ones of these cables are not essential for the
11:28:35 operation of the monitor?
11:28:37 A. The users can only pick one of those cables shown here,
11:29:10 that only one will make the monitor work.
11:29:18 Q. Would you agree that the power cable would be essential
11:29:23 for operation of the monitor?
11:29:28 A. Agree.
11:29:38 Q. Would you agree that an HDMI cable is not essential for
11:29:45 operation of a monitor?
11:29:47 MR. BENNETT: Objection. Leading.
11:29:48 THE COURT: Sustained.
11:29:49 MR. JOSHI: All right. Let's move on. Go down to
11:29:52 the color menu, please.
11:29:52 BY MR. JOSHI:
11:30:25 Q. With reference to this user interface, Mr. Lin, is the
11:30:30 use of this user interface by a user essential or optional?
11:30:43 A. Not essential.
11:30:55 Q. If the user of this ASUS product never used this user

11:31:13 interface, what would happen?
11:31:14 MR. BENNETT: Objection. Foundation. Calls for a
11:31:18 hypothetical. Speculation.
11:31:21 THE COURT: If you could lay a foundation and
11:31:22 instruct the witness not to speculate about it, I will
11:31:26 allow it.
11:31:28 MR. JOSHI: All right.
11:31:28 BY MR. JOSHI:
11:31:29 Q. Please don't speculate, Mr. Lin.
11:31:32 When would a user use this user interface?
11:32:04 A. When they are unsatisfied or unhappy about the hue and
11:32:13 saturation of a -- output image color, they would go to
11:32:21 make such adjustment according to the manual.
11:32:35 Strike it.
11:32:38 THE INTERPRETER: May interpreter request a
11:32:41 repetition, please?
11:32:42 MR. JOSHI: Are you asking me to repeat my
11:32:44 question?
11:32:46 THE INTERPRETER: No. May the interpreter request
11:32:51 a repetition from the witness for the answer, please?
11:32:54 MR. JOSHI: Yes.
11:33:17 A. When the users are unsatisfied or unhappy about the
11:33:22 brightness, contrast, saturations of the output images,
11:33:30 they can come to make the adjustment according to this
11:33:34 manual.

11:33:34 BY MR. JOSHI:
11:33:40 Q. Can this product be operated without making adjustments
11:33:45 to this user interface?
11:34:01 A. No.
11:34:08 Q. Okay. Let's -- let me -- let me move on to a new --
11:34:20 new exhibit.
11:34:21 MR. JOSHI: Could you please pull up No. 90,
11:34:28 Defense 90?
11:34:28 BY MR. JOSHI:
11:34:45 Q. Mr. Lin, are you familiar with a product VG248?
11:34:56 A. Yes.
11:34:59 MR. JOSHI: Could you please go down to the color?
11:35:03 MR. BENNETT: This is asked and answered,
11:35:05 Your Honor. We've already covered --
11:35:07 THE COURT: I'm sorry?
11:35:08 MR. JOSHI: I'm sorry.
11:35:09 MR. BENNETT: This is asked and answered. We have
11:35:12 already covered this manual.
11:35:13 THE COURT: Let's move along, Mr. Joshi.
11:35:15 MR. JOSHI: All right. Let's do just one or two
11:35:19 more. Please give me DX-91. Sorry about that.
11:35:19 BY MR. JOSHI:
11:35:34 Q. Mr. Lin, are you familiar with operation of VG278?
11:35:47 A. Yes.
11:35:48 MR. JOSHI: Mr. Oliver, would you please scroll

11:35:52 down to the color menu?
11:35:52 BY MR. JOSHI:
11:36:04 Q. Mr. Lin, momentarily you used words such as
11:36:13 "satisfied," "unhappy." Do you recall that, just moments
11:36:17 ago?
11:36:17 A. Yes.
11:36:28 Q. If a user is satisfied with the display colors, is the
11:36:38 user required to make adjustments to this menu to operate
11:36:43 the monitor?
11:37:10 A. Generally if they are satisfied, there's no need for
11:37:16 them to make such adjustments.
11:37:21 Q. If a user of this product wanted to adjust a hue or a
11:37:29 saturation of a particular color, for example, a red, a
11:37:33 green, or a blue, how would he or she do it?
11:37:37 A. Same answer. This particular model, this function is
11:38:01 not provided.
11:38:02 Q. This product does not provide the 6-axis hue control;
11:38:16 is that true?
11:38:17 MR. BENNETT: Objection --
11:38:18 THE COURT: I'll sustain the objection.
11:38:20 MR. JOSHI: I'll rephrase.
11:38:20 BY MR. JOSHI:
11:38:25 Q. You recall we talked about a 6-axis hue and 6-axis
11:38:30 saturation user interface awhile ago. Do you recall that?
11:38:35 A. Yes.

11:38:45 Q. This product does not provide the 6-axis -- I'm sorry.

11:38:52 Does this product provide the 6-axis control user

11:38:58 interface?

11:39:09 A. No.

11:39:09 Q. What percentage of ASUS's products provide the 6-axis

11:39:16 control user interface?

11:39:18 MR. BENNETT: Objection. Foundation.

11:39:20 THE COURT: Sustained.

11:39:20 BY MR. JOSHI:

11:39:26 Q. Mr. Lin, do you know which ASUS products provide the

11:39:34 6-axis hue or saturation control user interface and which

11:39:42 ones don't?

11:39:44 A. Generally speaking, only professional series would have

11:40:16 the 6-axis control functionality.

11:40:20 Q. Did you say professional series?

11:40:24 A. Yes.

11:40:33 Q. Does professional series refer to a specific subset of

11:40:45 ASUS's products?

11:40:47 A. It's one of the series of ASUS monitors.

11:41:21 Q. Do the products in the professional series of monitors

11:41:24 have 6-axis hue or saturation control?

11:41:33 THE INTERPRETER: Interpreter requests a

11:41:44 repetition because of connection, please.

11:41:47 The interpreter requests a repetition of the

11:41:53 question due to the connection, please.

MR. JOSHI: Okay. Sure.
BY MR. JOSHI:
Q. Do ASUS's monitors covered by the professional series provide 6-axis hue or saturation control?
A. Yes.
Q. Do you know what percentage of ASUS's monitors fall in the professional series category?
MR. BENNETT: Objection. Foundation.
THE COURT: Can you lay a foundation?
MR. JOSHI: Well, he said he's familiar with these products.
MR. BENNETT: Percentages are different than the products. The overall products that ASUS sells, he's not laid any foundation.
THE COURT: Can you lay a foundation for it, Mr. Joshi?
BY MR. JOSHI:
Q. Do you know which ASUS monitors fall in the professional series category?
A. Generally speaking, if the model names start with the letter P, it will fall into this category.
Q. Do you know which ASUS monitors fall outside the professional series category?
A. Well, yes. Other than those model numbers starting with the letter P, the others would not fall into this

11:44:11 category.
11:44:12 Q. Are monitors whose names begin with the letters PG fall
11:44:28 within the professional series category?
11:44:59 A. Well, I need to correct my answers provided earlier.
11:45:06 So here, PG stands for professional gaming.
11:45:13 Professional gaming. That's why I need to correct my
11:45:15 answer.
11:45:23 Q. Thank you, Mr. Lin.
11:45:25 Do monitors whose names begin with PA fall in the
11:45:34 professional series category?
11:45:49 A. Yes. Well, I need to add an explanation for that.
11:46:09 That was short for P-R-O-A-R-T. You don't need to
11:46:17 translate that.
11:46:19 Q. Let me -- let me -- please just answer the questions
11:46:23 I'm asking you, Mr. Lin. I know you want to explain more,
11:46:27 but please just tell me what I'm asking you.
11:46:37 A. Okay.
11:46:38 Q. Okay. Do monitors whose names begin with PA fall in
11:46:48 the professional series category?
11:46:58 A. Yes.
11:46:58 Q. Do monitors of ASUS whose names begin with PG fall in
11:47:10 the professional series category?
11:47:12 A. No.
11:47:21 Q. Okay. So do the monitors that fall -- strike that.
11:47:32 Do the monitors whose names begin with PG fall

outside the professional series category?
A. Yes.
Q. Okay. Do monitors that fall within the professional series category contain the 6-axis hue or 6-axis saturation user interface?
A. Should be the case for all of those.
Q. For the monitors that fall outside the professional series category, do they have the 6-axis control or do they not have the 6-axis control?
A. They do not.
Q. Do you know what percentage of ASUS's monitors fall in the professional series category?
MR. BENNETT: Objection, foundation.
MR. JOSHI: I laid the foundation --
THE COURT: He asked: Do you know?
MR. BENNETT: Oh, do you know, I'm sorry. You're right.
A. I do not know.
BY MR. JOSHI:
Q. Okay. Thank you, Mr. Lin.
A. You're welcome.

REDIRECT EXAMINATION

BY MR. BENNETT:
Q. Mr. Lin, I'd like to take you back to Plaintiff's Exhibit 26-76.

11:51:17 Do you remember our conversation about this
11:51:19 manual?
11:51:21 A. Yes.
11:51:25 Q. Do you remember our conversation about this manual
11:51:29 during your deposition?
11:51:30 A. I do not.
11:51:45 Q. I figured.
11:51:49 Just now, I heard Mr. Joshi ask you a whole bunch
11:51:52 of questions about this manual. Do you remember your
11:51:54 conversation with Mr. Joshi about this manual?
11:51:57 A. Yes, I do.
11:52:13 Q. And he asked you about what happens when you adjust the
11:52:18 R value. Do you remember when he asked you about that,
11:52:21 changing RGB values?
11:52:33 A. Yes, I do.
11:52:34 Q. But that's different than what you told us during your
11:52:41 deposition, isn't it, sir?
11:52:44 A. I don't remember we had any discussion in this matter
11:53:02 during the deposition, or I forgot.
11:53:05 Q. Well, let me remind you a little bit more about your
11:53:10 deposition. You were designated --
11:53:13 MR. BENNETT: Go ahead, Ms. Josh. Go ahead.
11:53:22 MR. JOSHI: Your Honor?
11:53:23 BY MR. BENNETT:
11:53:25 Q. Your employer, ASUS, designated you as a witness --

11:53:29 THE COURT: Hold on just a moment.
11:53:30 What's the objection?
11:53:31 MR. JOSHI: Your Honor, if he has -- if he wants
11:53:33 to impeach the witness with something he said, that's one
11:53:36 thing, but we're past discovery now.
11:53:38 THE COURT: I think we're getting to the
11:53:41 impeachment.
11:53:41 MR. JOSHI: Okay, sir.
11:53:42 MR. BENNETT: Indeed.
11:53:42 BY MR. BENNETT:
11:53:45 Q. We asked your employer to produce somebody at a
11:53:49 deposition to answer our questions about manuals like
11:53:52 Plaintiff's Exhibit 76. Do you remember that?
11:54:23 A. I'm sorry. You weren't asking me whether I remember
11:54:28 that?
11:54:29 Q. I'll tell you what. I'll do one better.
11:54:32 MR. BENNETT: Your Honor, for demonstrative
11:54:34 purposes only, I'd like to publish to the jury the
11:54:37 deposition notice of ASUSTeK.
11:54:39 THE COURT: I'll allow that.
11:54:41 MR. BENNETT: Thank you.
11:54:43 It's Plaintiff's Exhibit 72, Denver.
11:54:43 BY MR. BENNETT:
11:54:58 Q. This is the deposition notice. You'll see at the top
11:55:01 right-hand corner there's a stamp. And that stamp is there

because we discussed this document at your deposition, right?

A. I'm sorry. I don't understand the content of this document.

MR. BENNETT: Madam Interpreter, you're welcome to translate that into Chinese for him so he can understand. And then let me know, please, when you're done.

THE INTERPRETER: May the interpreter clarify? The interpreter is required to interpret the notice in its entirety or just the caption?

MR. BENNETT: Thank you for that clarification.

Definitely not in its entirety, ma'am. Just the part you can see on your screen.

THE INTERPRETER: Would you please scoot it up a little bit?

MR. BENNETT: That's all. If you're through what you can see just through the title of the document, that's all I need for now, ma'am.

THE INTERPRETER: The interpreter can't see the title --

MR. BENNETT: Oh, okay.

THE INTERPRETER: -- yet. It's blocked by the video.

MR. BENNETT: So can you scroll down just a little bit, Denver?

11:57:02 BY MR. BENNETT:
11:57:30 Q. Did that refresh your recollection, Mr. Lin?
11:57:41 A. Well, I did attend the deposition.
11:57:43 Q. All right. And I know you did because we took it, but
11:57:46 my question is this: When we asked ASUSTeK to produce
11:57:52 somebody at a deposition, they gave us you, correct?
11:58:11 A. Right.
11:58:16 Q. Okay. Now, just a moment ago, we in this courtroom and
11:58:20 the jury heard you tell Mr. Joshi all about how if you
11:58:25 adjust one axis, when we're looking at Plaintiff's
11:58:31 Exhibit 26-76, what will happen. Do you remember that
11:58:35 conversation with Mr. Joshi?
11:58:55 A. Yes, with Mr. Joshi.
11:58:59 Q. Okay. Now, when we took your deposition, do you
11:59:05 remember the circumstances at that deposition? Do you
11:59:07 remember it was 3:00 a.m. in Dallas when we took that
11:59:09 deposition?
11:59:13 A. Well, it was in the morning time in Taipei. I am not
11:59:36 sure what time in Dallas.
11:59:37 Q. Fair enough.
11:59:39 But when we asked you at your deposition, where
11:59:44 you represented your employer, if I increased the R value
11:59:48 from 50 to 60, meaning the value of red, I have not changed
11:59:54 the value of G or B, and we asked you if that was correct,
12:00:00 do you remember what your answer was under oath back in

12:00:04 November?
12:00:23 A. Well, I don't remember what I answered to that question
12:00:34 at that time.
12:00:34 Q. Your answer was on Line 8 of Page 20 -- Page 23,
12:00:40 Line 8: I'm not sure.
12:00:42 We followed up --
12:00:44 MR. BENNETT: Go ahead.
12:00:44 BY MR. BENNETT:
12:01:04 Q. And that was true -- and that was a truthful answer,
12:01:06 wasn't it, sir?
12:01:08 MR. BENNETT: I'm sorry. Please interpret it.
12:01:11 A. Okay. I see it now.
12:01:11 BY MR. BENNETT:
12:01:18 Q. And that was a truthful answer, wasn't it, sir?
12:01:31 A. Hold on. I'm reading this question still.
12:01:37 Q. Sir, I've already read you the question. Your answer
12:01:40 was: I'm not sure. And you -- and that was --
12:01:55 A. From the record you're showing, I did answer this way
12:02:01 at that time.
12:02:02 Q. That's right. And then we followed up again. We asked
12:02:07 you why. And on Line 10 to 11, you said: We provide the
12:02:13 adjustment to the R axis, but I'm not sure whether it will
12:02:18 affect the others.
12:02:19 That's what you said in November.
12:02:37 THE COURT: Mr. Bennett, just a moment. There's

an objection.

MR. JOSHI: Your Honor, there's nothing inconsistent here. He's making an objection with a prior consistency --

THE COURT: Sit down, Mr. Joshi.

Continue.

BY MR. BENNETT:

A. I think --

MR. BENNETT: Go ahead, translator. Please translate, and then I guess we'll get an answer. Let me try again.

THE INTERPRETER: The interpreter did not hear the answer.

BY MR. BENNETT:

Q. Okay. We followed up and asked you why -- and your answer, 3:00 a.m. Dallas time on November 30th, 2020, was: We provide the adjustment to the R axis, but I'm not sure whether it will affect the others.

It's on screen, sir. That was your testimony, wasn't it?

A. Now I see it.

Q. And you told the truth that day, didn't you?

A. On that day I did tell the truth.

Q. And then we followed up again, trying to get an answer to the question that you had been provided to give us. On

Line 19 to 21, we asked: If I change the value of R without changing the value of G, does the value of G change?

And your answer was: Again, I am not sure. We provide the adjustment to R, G, and B.

Do you see that?

A. Well, this answer looked a little strange. I don't know what the original question was about.

MR. BENNETT: I move to strike, Your Honor, as nonresponsive.

THE COURT: I'll sustain the objection. Strike the answer and instruct the jury to ignore the response.

BY MR. BENNETT:

Q. I'll try again, Mr. Lin.

On November 30, 2000 [sic], we asked you under oath: If I change the value of R without changing the value of G, does the value of G change?

And your answer under oath on that day, sir, was: I'm not sure. We provide the adjustment to R, G, and B.

Correct?

A. I see that. However, Ms. Interpreter, would you please help me to ask clarification here, please. When it says, "I'm not sure," does that mean that I am not sure whether we do provide that functionality?

Q. Mr. Lin, I don't know what you meant. I just got your

12:07:48 answers on a piece of paper because ASUS gave us you as a
12:07:53 witness. Your answer was: I'm not sure.
12:07:55 Let me ask it this way. Let me try this. After a
12:07:59 deposition, you were given a chance -- you were -- or at
12:08:02 least your company was, your employer was given a chance on
12:08:06 a form called an errata to make changes, to make any
12:08:11 clarifications to your testimony that they wanted.
12:08:14 MR. BENNETT: Please provide the translation, and
12:08:16 I'll finish the question.
12:08:16 BY MR. BENNETT:
12:08:58 Q. And you never provided any changes or clarifications to
12:09:04 your November 30th deposition between now and today when
12:09:10 you appeared in this courtroom, correct?
12:09:15 A. Who should I make -- who should I have made that
12:09:40 clarification to?
12:09:42 Q. Mr. Lin, you can ask your lawyers questions when you're
12:09:47 not on cross. My question is real simple. There is a
12:09:50 process whereby you can make changes and clarifications to
12:09:54 your testimony.
12:09:54 My question is this: ASUS, you will agree with
12:09:57 me, never approached you to make any changes or
12:10:01 clarifications to your November 30th testimony; isn't that
12:10:05 true, sir?
12:10:45 A. Well, after the deposition, I have never received such
12:10:51 record, and I do not have any motive to pursue that,

either, right?
Q. Well, the problem, Mr. Lin, is today, despite all of those answers on November 30th, 2020, you walked into this court -- or you walked and appeared in this court with Mr. Joshi and contradicted every answer you gave us on November 30th that we just reviewed; isn't that right?
A. It's not exactly contrary to those answers, right? And at that moment my answer was I was not sure.
Q. That's right. On November 30th, you told us you didn't know and you weren't sure. But today you walked in and told Mr. Joshi that you were to this jury, right?
A. That's right. Because the time changed, right? And now it is already six months after the deposition.
Q. That's true, except I think we still agree, and you can correct me if I'm wrong, you never submitted that form to tell us that you were going to change your answers, did you?
A. I do not even know such procedure exists.
Q. And you swore to tell the truth to this jury when we swore you in yesterday, right?
A. Yes.
Q. Which version of the truth do you want the jury to believe, Mr. Lin, the one you told on the 30th or the one you told today?
MR. JOSHI: Objection, Your Honor.

12:14:05 THE COURT: What's the objection?
12:14:06 MR. JOSHI: I haven't had a chance, Your Honor, to
12:14:09 ask him questions about what he said at the deposition.
12:14:11 THE COURT: I'm sorry?
12:14:13 MR. JOSHI: I haven't had a chance to ask him what
12:14:16 he said at the deposition.
12:14:16 THE COURT: What's the objection to the question,
12:14:20 Mr. Joshi?
12:14:20 MR. JOSHI: Mischaracterizing the witness's
12:14:23 testimony.
12:14:23 THE COURT: I'm going to let him. You'll have a
12:14:25 opportunity to ask questions.
12:14:30 MR. JOSHI: Thank you.
12:14:30 MR. BENNETT: Let me repeat the question, Madam
12:14:34 Translator.
12:14:34 BY MR. BENNETT:
12:14:34 Q. Which version of the truth do you want the jury to
12:14:37 believe, your November 30th, 2020, testimony when you
12:14:39 didn't know a thing, when ASUS was supposed to produce
12:14:43 somebody who did, or your version of the testimony to this
12:14:45 jury now? Which version?
12:15:15 A. I told you the truth during the deposition. So am I
12:15:20 telling the truth here in this trial.
12:15:25 MR. BENNETT: I see we're past noon, Your Honor.
12:15:27 I can stop for lunch or --

12:15:29 THE COURT: Yeah, I think we should probably stop.
12:15:33 How much more do you have, Mr. Bennett?
12:15:35 MR. BENNETT: I have a lot.
12:15:36 THE COURT: Okay. Let's go ahead and break for
12:15:40 lunch now.
12:15:40 Ladies and gentlemen of the jury, we'll recess for
12:15:42 lunch now. Don't discuss the case until all of the
12:15:46 evidence has been presented and I have instructed you on
12:15:50 the law.
12:15:51 We'll be in recess until about 1:15.
12:15:54 COURT SECURITY OFFICER: All rise for the jury.
12:16:04 (Jury out.)
12:16:20 THE COURT: Okay. Please be seated.
12:16:23 Mr. Joshi, I want to say, I apologize for being
12:16:26 short with you in response to one of your objections. I'm
12:16:30 not a fan of speaking objections.
12:16:32 MR. JOSHI: Okay.
12:16:32 THE COURT: So if you have an objection to a
12:16:34 question, say that you have an objection and state the
12:16:37 grounds for it. But this sort of discussion about how the,
12:16:40 you know, answer was not inconsistent with the prior
12:16:43 testimony, that was not appropriate. So I shut that
12:16:46 conversation down, and perhaps I did so too rudely. So my
12:16:53 apologies.
12:16:54 MR. JOSHI: Thank you, Your Honor.

12:16:57 MR. BENNETT: We have a discovery sanction problem now. There was a limine. It happened too fast, so that's my fault, but the sidebar problem contributed to it.

I'm sorry.

But this man was designated as ASUS's corporate representative on these topics, and he changed materially that testimony, and we just confirmed it on the record.

His entire, air quotes, cross by Mr. Joshi is suspect on these topics. All of these color changes that he didn't know about before that they deprived us of an opportunity to obtain, and now they show up here with something totally different.

I cross-examined him, but we move to strike almost his entire testimony or that the jury be given an instruction that given the failure to produce somebody on November 30th who actually knew to answer the questions, they should disregard Mr. Lin's testimony entirely on those issues.

MR. JOSHI: So, Your Honor, let me explain.

THE COURT: It's not on. The light has to be green.

MR. JOSHI: Let me explain a big problem here that I picked up on. I was at the deposition.

Your Honor, there are two -- two sides to the discussion on colors. When one is on the user interface

side selecting a color, which is what I mostly spoke with Mr. Lin about, when you can either select this color, that color, does this menu allow this, does that menu allow that, that's one side of the conversation.

The conversation at the deposition was about what happens on the display. So there are two sides to this, and that's the confusion, where he is getting confused.

My conversation with him today was entirely about the user interface side.

Okay. On the display side, if the green changes to red, if -- you know, that's where he said, I'm not sure.

So these are two different conversations, and I see no inconsistency here --

THE COURT: Well --

MR. JOSHI: -- and I was there.

THE COURT: Okay. That's certainly an argument you-all can make.

Mr. Bennett, I'm going to let you continue with your cross-examination, and you'll see, you know, just however you think is necessary.

Mr. Joshi can follow up however he wants to.

If there's a case that you've got on this point, Mr. Bennett, I'll be glad to look at it.

I do know cates [sic] -- courts, you know, treat errata sheets differently and whether a witness can change

30(b)(6) testimony.

I'm certainly not in a position right now to make a ruling on this. We'll see what the testimony looks like when it's fully completed. And to the extent the parties can assist us with directing us to any case law, that would be very helpful.

MR. BENNETT: Understood, Your Honor.

MR. JOSHI: Thank you.

COURT SECURITY OFFICER: All rise.

(Recess.)

COURT SECURITY OFFICER: All rise.

THE COURT: Okay. Let's have the jury brought in.

(Jury in.)

THE COURT: Please be seated.

All right. Mr. Bennett, you may continue.

MR. BENNETT: Thank you, Your Honor.

BY MR. BENNETT:

Q. Mr. Lin, just to confirm, back in November of 2020, whether it was a 6-axis product or a 3-axis product, you weren't sure whether adjusting the R axis, for example, would affect other colors. Is that fair?

A. Well, during the deposition and -- I answered your questions according to the situations at that time.

Q. And that's fair. And I'm just asking a question about what you knew back in November of 2020. So let me try one

more time.

Back then, November of 2020, whether it was a 6-axis product or a 3-axis product, you weren't sure, did not know, whether adjusting the R axis, for example, would affect the other colors? At that time, you weren't sure?

A. Well, I'm not sure whether I knew or not at that specific time. However, I did answer questions and according to the -- that situation at that time, and I am sure that the answer I gave at that time were the answers you just showed me.

Q. Okay. But you're sure now, right?

A. Well, I trust the record you just showed me because that was an official record for that.

Q. Yeah, and I'm not talk -- we can put aside that -- that deposition just for a moment. I'm just asking about where things are now.

While you may have been -- strike that.

Let me try it this way. You were unsure in November of 2020 whether a 6-axis product would adjust the R axis, for example, and affect other colors?

A. That's right. If I answered to this question at that time was "I am not sure," that must have been my answer at that time. I was not sure.

Q. Okay. And what about a 3-axis product? Back in November of 2020, you weren't sure at that time whether

adjusting the R axis would affect other colors in the 3-axis product at that time, correct?
A. It must be my answer then if the record shows that.
Q. Well, I'm -- let me ask it this way. Regardless of what the record shows, best you can remember back in November of 2020, you did not know what would happen to the other colors if R were adjusted on a 3-axis product, right?
A. I don't remember whether I knew it or not at that specific time.
Q. Fair enough. Thank you, Mr. Lin.
A. You're welcome.
Q. ASUS -- ASUS's lawyer took you through a lot of different documents. I'm going to try and go through those as quickly as I can and ask you a few questions about them.
MR. BENNETT: Denver, let's start first with Plaintiff's Exhibit 26-2, please.
And, for the record, I think I walked too far from the mic. It's Plaintiff's Exhibit 26-2.
BY MR. BENNETT:
Q. Do you remember discussing this document with Mr. Joshi?
A. Yes.
Q. Okay. Now, before we go there or to the part of this manual I want to talk about, I want to flip back real quick to a document that you and I discussed, which was

01:25:37 Plaintiff's Exhibit 26-30.

01:25:45 Do you remember discussing this document with me,

01:25:47 Mr. Lin?

01:25:59 A. Yes, probably.

01:25:59 MR. BENNETT: Denver, 24...

01:26:00 BY MR. BENNETT:

01:26:00 Q. Okay. We specifically looked at a Troubleshooting FAQ.

01:26:17 Do you remember that, our conversation?

01:26:28 A. Yes, I do. I do remember we probably have, yes.

01:26:31 Q. And we looked at a few of these, but we talked

01:26:35 specifically about the problem, screen image has color

01:26:38 defects and the solution that ASUS instructs users to

01:26:44 follow if they experience that problem. Do you remember

01:26:48 that?

01:26:50 A. We did discuss this matter.

01:27:07 Q. And one of the possible solutions to that issue is

01:27:11 adjust the RGB color settings, right?

01:27:15 A. Yes.

01:27:29 Q. Okay.

01:27:33 MR. BENNETT: Let's go back to Plaintiff's

01:27:35 Exhibit 26-2, please. And go to Page 4402, please, Denver.

01:28:00 Maybe a little down -- I'm sorry, 4409. Can't read my own

01:28:15 handwriting. Apologies.

01:28:17 BY MR. BENNETT:

01:28:24 Q. This is another one of those Troubleshooting FAQs,

01:28:28 isn't it, Mr. Lin?
01:28:34 A. It appears so.
01:28:37 Q. Okay.
01:28:38 MR. BENNETT: And if you'll scroll down, please,
01:28:42 Denver, and specifically focus on color display adjustment.
01:28:56 BY MR. BENNETT:
01:28:56 Q. This is the same instructions in this manual as the
01:28:59 6-axis manual we just looked at, right?
01:29:02 A. Well, there's no mention of 6-axis anywhere here.
01:29:22 Q. That wasn't my question, Mr. Lin.
01:29:24 My question was, the instruction on how to
01:29:27 troubleshoot this problem in Plaintiff's Exhibit 26-2 is
01:29:33 the same as the instruction in the 6-axis menu, which is to
01:29:39 adjust the RGB color settings, right?
01:29:45 A. Well, the text are the same, that's right.
01:30:12 Q. Okay.
01:30:12 A. But --
01:30:13 Q. Thank you.
01:30:19 MR. BENNETT: Let's go to Plaintiff's
01:30:34 Exhibit 26-49, please.
01:30:37 BY MR. BENNETT:
01:30:40 Q. Do you remember discussing this user manual with
01:30:42 Mr. Joshi, Mr. Lin?
01:30:44 A. Yes.
01:30:50 MR. BENNETT: Denver, will you please go to

01:30:53 Page 25 of the PDF?
01:31:12 BY MR. BENNETT:
01:31:12 Q. That very last -- if you'll look at that very bottom
01:31:17 box under Problem, Mr. Lin, and Problem Solution, it lists
01:31:24 the same solution to that color defects problem, right?
01:31:29 Adjust the RGB color settings?
01:31:48 A. Well, they looked identical, looked like they just
01:31:54 copied and pasted it.
01:31:55 Q. And that may be. Maybe they did copy and paste, but
01:32:00 whatever they did, ASUS is telling users who experience
01:32:05 color defects in their screen image that one of the
01:32:08 possible solutions for this model is to adjust the RGB
01:32:12 color settings, right?
01:32:15 A. Well, just like I -- just like I explained earlier this
01:33:07 morning, and this is not a color defect, so-called, and it
01:33:15 was for something with the color white. I have to make a
01:33:20 correction here.
01:33:23 MR. BENNETT: Your Honor, I move to strike that
01:33:25 answer as nonresponsive.
01:33:26 THE COURT: I will grant the motion and strike the
01:33:30 response and instruct the jury to ignore the answer.
01:33:38 BY MR. BENNETT:
01:33:43 Q. Mr. Lin, my question was pretty simple. Let me try it
01:33:43 again.
01:33:48 Whether they copied or pasted it or whatever ASUS

01:33:50 did with this user manual, if a user of this product has a
01:33:53 screen image that has color defects and they look in this
01:33:56 manual, one of the solutions that ASUS tells them exists to
01:34:00 the problem is adjust the RGB color settings, right?
01:34:50 A. It's possible that the users will go to look at this
01:34:54 and make adjustment like this accordingly.
01:35:05 MR. BENNETT: Let's go to Plaintiff's
01:35:08 Exhibit 26-74, please, Denver.
01:35:10 BY MR. BENNETT:
01:35:20 Q. All right. You discussed this manual with Mr. Joshi,
01:35:23 as well, right?
01:35:33 A. Right.
01:35:34 MR. BENNETT: Let's go to Page 6969.
01:35:37 BY MR. BENNETT:
01:35:52 Q. All right. For this product, ASUS gives the same
01:35:57 advice to users of this product, every other product that
01:36:01 we've seen. If the screen image has color defects, we
01:36:06 should adjust the RGB color settings, right?
01:36:33 A. Well, these texts you are showing me now are identical
01:36:40 to the ones you showed me previously, yes.
01:36:54 Q. I want to take you back to Defense Exhibit 87, please.
01:37:08 Now, when discussing this manual with Mr. Joshi,
01:37:11 you confirmed for us this manual is an example of 3-axis
01:37:17 functionality, right -- or excuse me. Strike that. I'm
01:37:24 sorry.

When you were speaking about this manual with Mr. Joshi, you confirmed for us that the product described in this user manual is an example of 3-axis functionality, right?

A. Oh, are you asking these questions to me?

Q. Yes, Mr. Lin. I'm asking you, when you spoke with Mr. Joshi about this document, he asked you about this product, the PG278QR. And you told him -- and I'm just making sure we're still in agreement, that this is an example of 3-axis functionality?

A. Yes.

MR. BENNETT: Okay. Denver, can we go to Page 25 of the PDF, please?

BY MR. BENNETT:

Q. Here we are again, the ubiquitous Troubleshooting FAQ, and this FAQ and this 3-axis monitor gives ASUS users the same instructions as every other manual we've looked at when it comes to a possible solution to a color defect which is adjust the RGB color settings, right?

A. Yes, the texts are identical.

MR. BENNETT: All right. Let's go the Defense Exhibit 88.

BY MR. BENNETT:

Q. And I'm sorry to belabor this, I'm not trying to pester, but Mr. Joshi went over these documents so we have

01:40:15 to, too.
01:40:28 A. I understand.
01:40:28 Q. Thank you. So this is the PG279 series. You see that?
01:40:37 A. I can see that.
01:40:40 Q. All right.
01:40:42 MR. BENNETT: And I apologize, Denver. I don't
01:40:44 have a page for you. But it's 3-7 in the manual. That's
01:40:48 the one. Thank you.
01:40:49 BY MR. BENNETT:
01:40:58 Q. And like every other manual we've looked at so far,
01:41:02 this manual, too, when users of this product encounter
01:41:06 color defects, one of the possible solutions to that
01:41:10 problem is to adjust the RGB color settings?
01:41:40 A. My answer will remain the same as the previous one.
01:41:43 Q. Which is what, Mr. Lin?
01:42:02 A. From the literal meaning here, one of the solutions
01:42:07 would be adjust the RGB color settings.
01:42:15 MR. BENNETT: Let's go to -- I think we've covered
01:42:17 that one already -- Defense Exhibit 91.
01:42:30 BY MR. BENNETT:
01:42:30 Q. This is the manual for the VG278, right?
01:42:37 A. Right.
01:42:38 Q. And you discussed this manual with Mr. Joshi, as well?
01:42:41 A. Yes.
01:42:55 Q. And like every other manual we've looked at, it

suggests to users of this particular product, when a screen image has color defects, they should adjust the RGB color settings, right?

A. Well, I still wanted to make this clarification that the words in that -- in that bracket actually are the real meaning we meant to say.

MR. BENNETT: Your Honor, I move to strike that answer as nonresponsive.

THE COURT: I'll strike the response and instruct the jury to ignore it.

MR. BENNETT: I'll move on.

BY MR. BENNETT:

Q. I want to look at Defense Exhibit 139, please.

Do you remember speaking with Mr. Joshi about this document, Mr. Lin?

A. Yes.

Q. All right. And he took you through this, has a lot of manufacturers, companies that -- ODMs that help ASUS assemble these various display products, right?

A. Yes.

Q. All right. Whatever products these ODMs make, they make subject to ASUS's specifications, right?

A. Yes.

Q. And if these ODMs ship products to the United States for sale here, they do so at ASUS's direction, right?

01:45:58 A. Yes.
01:46:13 Q. And you're here today on ASUS's behalf, right?
01:46:31 A. Would you please verify that "on behalf of ASUS"? What
01:46:38 specific matters?
01:46:40 Q. Well, let me ask it differently. You're here appearing
01:46:45 as an ASUS employee, right?
01:46:54 Let me repeat the question.
01:47:04 MR. BENNETT: Madam Translator, are you there
01:47:07 still?
01:47:18 THE INTERPRETER: Your Honor?
01:47:19 THE COURT: Yes.
01:47:35 A. Yes, I am ASUS employee.
01:47:37 BY MR. BENNETT:
01:47:38 Q. Okay. And the product features that we've discussed
01:47:43 today are in those products because ASUS wanted them in the
01:47:48 products, right?
01:48:04 A. Yes.
01:48:05 Q. All right. And ASUS products that are purchased in the
01:48:10 United States are here because ASUS wanted those products
01:48:13 here in the United States, right?
01:48:33 A. Well, it sounds about right, logically.
01:48:39 Q. I'll take that answer.
01:48:41 MR. BENNETT: I'll pass, Your Honor.
01:48:43 THE COURT: All right.
01:48:55 RECROSS-EXAMINATION

01:48:55 BY MR. JOSHI:
01:49:09 Q. Hello, Mr. Lin. This is Vinay Joshi again.
01:49:15 Hello. Can you hear me, Mr. Lin?
01:49:20 A. Yes, I can hear you. I can hear you.
01:49:23 Q. Mr. Lin, you had a conversation with Mr. Bennett about
01:49:32 your deposition. Do you remember?
01:49:41 A. Yes.
01:49:42 Q. And he said you're inconsistent between what you said
01:49:46 at the deposition and what you said to me here today. Do
01:49:52 you recall that?
01:50:04 A. We did discuss that, yes.
01:50:05 Q. And, in fact, he pointed out on a couple of occasions
01:50:10 you said you weren't sure at the deposition, but then he
01:50:13 said you had clear answers here today. Do you recall that?
01:50:16 A. I did remember we do have such discussion.
01:50:37 Q. Okay. So I'm going to ask you some questions now about
01:50:41 the deposition. If you don't remember, say: I don't
01:50:46 remember. Otherwise answer truthfully, okay?
01:51:05 A. Okay.
01:51:05 Q. Do you remember if I was present at the deposition?
01:51:10 A. Yes.
01:51:20 Q. Do you remember if Mr. Bennett was present at the
01:51:24 deposition?
01:51:24 MR. BENNETT: Your Honor, objection. Relevance.
01:51:28 THE COURT: What's it go to, Mr. Joshi?

MR. JOSHI: I'll connect the dots soon. I'm going to show what the misunderstanding is.

THE COURT: I'll give you a little latitude.

MR. JOSHI: Thank you, Your Honor.

A. Person who was present during the deposition with me looked like a Chinese American.

BY MR. JOSHI:

Q. Now, today, your conversation with me, Mr. Lin, I asked you a lot of questions about user interfaces, correct?

A. Right.

Q. For example, I asked you questions like whether a user can adjust hue or saturation for a particular color like red, correct?

A. Right.

Q. So my questions were about adjustments to the user interface, correct?

A. Yes.

Q. And I don't recall asking you very many questions, if any at all, about adjusting the colors on the display side; is that correct?

MR. BENNETT: Objection. Leading.

THE COURT: I'll sustain the objection.

BY MR. JOSHI:

Q. Mr. Lin, when Mr. Bennett was talking to you about your deposition, did he provide context on whether the questions

posed to you at the deposition were about the user interface or the display?

MR. BENNETT: Objection, Your Honor. Argumentative.

THE COURT: Overruled.

A. I did not see it.

BY MR. JOSHI:

Q. Okay. Is the technology for adjusting colors on the user interface side different from the technology for adjusting colors on the display side in ASUS monitors?

A. Not different.

Q. Let me -- let me ask you different questions.

The user interface, is it the same or different from the display?

MR. BENNETT: Objection. Asked and answered. Leading.

THE COURT: I'll sustain that.

Move along, Mr. Joshi.

MR. JOSHI: All right.

Could I please have Plaintiff's 26-74 brought up and go to Bates 6969? Thank you.

BY MR. JOSHI:

Q. Mr. Lin, Mr. Bennett showed you this -- this page and several other manuals where -- do you see that phrase: Screen image has color defects, open paren, white does not

look white, close paren.

Do you see that?

A. Yes.

Q. And on the right-hand side column, it says: Adjust the RGB color settings or select the color temperature via OSD.

Do you see that?

A. Yes, I can see that.

Q. My question is this: The reference to adjust in that sentence, is that for adjusting gain, hue, or saturation or brightness or something else?

A. Adjust the power used. I'm sorry, strike that.

Adjust the gain, G-A-I-N.

Q. And would your answer be the same if I asked you the same questions about the other manuals discussed with Mr. Bennett?

A. Yes.

Q. Thank you, Mr. Lin.

MR. BENNETT: Very little.

THE COURT: Very briefly.

MR. BENNETT: Very briefly.

THE COURT: Last examination.

MR. BENNETT: Yes.

DIRECT EXAMINATION

BY MR. BENNETT:

Q. Mr. Lin, ASUS, it's goal is to provide accurate

instructions to its customers, right?
A. Well, for user manuals, yeah, we do have that goal.
Q. And ASUS would not suggest to its users solutions and options that don't exist, would it?
A. Of course. If they do not exist, I wouldn't have suggested.
MR. BENNETT: Thank you, Mr. Lin.
THE COURT: Okay. I think that completes the testimony of this witness.
Ms. Josh, thank you for assisting us with the examination.
THE INTERPRETER: My pleasure, Your Honor.
THE COURT: Thank you very much.
Okay. Plaintiffs may call their next witness.
THE INTERPRETER: Your Honor, may interpreter be excused?
THE COURT: Yes. Thank you, ma'am.
THE INTERPRETER: Okay.
MR. BENNETT: I'm going to move my stuff out of the way, but we call Dr. Al Ducharme.
THE INTERPRETER: Hold on, Your Honor. May I be excused, as well, from witness?
THE COURT: Yes, you may. Thank you very much.
THE INTERPRETER: I wanted to make sure, Your Honor. Is there any further request for me to appear

here for rest of the day from the witness?

THE COURT: May the witness be released?

MR. JOSHI: Yes, Your Honor.

THE COURT: May the witness be released, Mr. Bennett?

MR. BENNETT: Oh, yes.

THE COURT: Thank you very much, Mr. Lin.

THE INTERPRETER: Thank you.

THE COURT: Okay. If you would come around, sir, and raise your right hand to be sworn.

THE WITNESS: Right here?

(Witness sworn.)

MR. SABA: Your Honor, can we just have two minutes to grab something out of the --

THE COURT: Yes, yes.

MR. SABA: So sorry about that.

THE COURT: No, that's fine. You're fine.

MR. BENNETT: Your Honor, I apologize for not raising this sooner. For Dr. Ducharme, we do have some visual materials, possibly a demonstration -- not possibly -- we will have one. We had discussed this kind of configuration and how we make sure everyone in the courtroom can see the demonstration when it happens. Can I indulge the Court for a brief moment to get set up in a place where it's satisfactory to --

THE COURT: Are we going to start that with him right now?

MR. SABA: Yes, Your Honor. I apologize.

THE COURT: Okay. That's all right.

Let's take a very short recess, ladies and gentlemen of the jury. We'll meet back in the courtroom as quickly as we can.

MR. SABA: Thank you, Your Honor.

COURT SECURITY OFFICER: All rise for the jury.

(Jury out.)

MR. BENNETT: And, Your Honor, I think there's some objections to some of the demonstratives.

THE COURT: I looked at the demonstratives. I don't have color copies here, but I did look at -- at color copies earlier.

Can I hear what the objection is?

MR. JOSHI: Well, sir, the 33 to 35, I believe, the later ones, they -- they're just some colored papers, but what we're told is they may relate to a demonstration that he's going to do.

So as a part of his expert report, he hasn't really provided any kind of a demonstration or a video or anything like that, so we're not familiar with what he's going to do. Your Honor has already ruled that he's limited by his expert report.

02:05:11 Now, of course that doesn't mean that he has to only read it, but at the same time we don't want to be surprised by a test that he's never disclosed before.

02:05:18 THE COURT: Okay.

02:05:20 MR. BENNETT: This is not a test that's not been disclosed before. This is to abate the prejudice that we experienced as a result of the opening.

02:05:23 THE COURT: I think your battery is dying.

02:05:31 MR. BENNETT: I think my battery may be going out. May I approach?

02:05:33 THE COURT: Yes, please.

02:05:37 MR. BENNETT: I think this one is going out, too.

02:05:38 THE COURT: Try the third one. Maybe the third time will be the charm.

02:05:40 MR. BENNETT: How's that?

02:05:43 THE COURT: Much better.

02:05:45 MR. BENNETT: Okay. Thank you, Your Honor.

02:05:47 This is mostly directed to what happened at opening and statements made and assertions made against, specifically, Dr. Ducharme. It's entirely consistent with his report. It's entirely consistent with what he said in that report, and the demonstratives that were provided show that.

02:05:49 I think the pages that Mr. Joshi's specifically referring to are the ones that they used in their opening.

02:05:50

02:05:52

02:05:54

02:06:00

02:06:03

02:06:07

02:06:11

02:06:12

02:06:15

02:06:19 So this goes to what -- I won't rehash these issues but it
02:06:25 goes directly at that.
02:06:29 MR. JOSHI: If we used it in our slides, then we
02:06:32 withdraw the objection. We just -- we didn't know if they
02:06:35 were just going to use the slide, or it was going to be a
02:06:38 part of -- of a demonstration.
02:06:39 But there are other slides, like the one they have
02:06:42 now, that looks like it's going to be part of a
02:06:46 demonstration. We have never seen it before.
02:06:48 THE COURT: Well, you know, here's my view about
02:06:49 this. The Plaintiffs, likewise, didn't hear -- see the
02:06:53 demonstration or didn't have any knowledge about the
02:06:56 demonstration was that Mr. Oliver performed in his opening
02:06:59 statement.
02:07:00 As long as the witness's testimony is consistent
02:07:03 with the expert report that he's provided and presumably
02:07:09 was deposed on and there's nothing new there, I'm going to
02:07:12 permit him to testify consistent with that -- that report.
02:07:16 Now, if there's something entirely new, that's a
02:07:21 different matter, and you'll, you know, obviously be fully
02:07:23 entitled to go into that on cross-examination. But an
02:07:29 expert sitting in the courtroom having observed a
02:07:33 demonstration is able, it seems to me, to fairly comment on
02:07:40 the demonstration when he gives his testimony.
02:07:44 Again, if there's something completely new here,

that would be a different matter, and we would, you know, need to take that up outside the presence of the jury. But so far as I'm concerned, if it fairly meets the demonstration that Mr. Oliver did without notice to opposing counsel in his opening, I think it's fair.

MR. JOSHI: So then that just leaves one slide. And there -- he has some kind of a temperature graph we've never seen before, and that had nothing to do with this morning, but we don't know what that is.

THE COURT: Do you have any idea what that is?

MR. SABA: I don't know what he's talking about, but I --

MR. JOSHI: Those curves, you know, that...

MR. SABA: Oh, that's the demonstrative scientific slide that has to do with the testing equipment that I think the Judge ruled on already.

MR. OLIVER: A human visual perception --

MR. JOSHI: Yeah, there's a human visual perception graph that we haven't seen before.

MR. BENNETT: It's a standard graph. I think with some predicate, if you want us to ask Dr. Ducharme about it now, we're happy to, but...

THE COURT: Do you want to voir dire the witness on it now? I mean, do we really need to keep the jury waiting about this, Mr. Joshi, to be honest with you?

MR. JOSHI: Okay. We'll just withdraw it.

THE COURT: Very well. Let's proceed.

MR. BENNETT: Thank you, Your Honor.

MR. SABA: Thanks, Your Honor.

THE COURT: Let's have the jury brought in.

Mr. Saba, are you ready?

MR. SABA: Yes, Your Honor.

COURT SECURITY OFFICER: All rise for the jury.

(Jury in.)

THE COURT: Okay. Please be seated.

Mr. Saba, you may proceed. The witness has been sworn.

MR. SABA: Thank you, Your Honor.

ALFRED DUCHARME, PLAINTIFF'S WITNESS, PREVIOUSLY SWORN

DIRECT EXAMINATION

BY MR. SABA:

Q. Good afternoon, Dr. Ducharme. Can you please state your full name for the ladies and gentlemen of the jury and the Court?

A. Sure. It's Alfred Dale Ducharme.

Q. And, Dr. Ducharme, what issues will you be testifying about today?

A. I'm an expert witness, and I'll be testifying about some accused ASUS products and how they relate to the '435 patent.

MR. SABA: May I approach, Your Honor?

THE COURT: Yes, you may. I think that will be better.

BY MR. SABA:

Q. Dr. Ducharme, we'll talk about your opinions in a little bit more detail later, but can you please -- just to move things along, can you please give the ladies and gentlemen of the jury a brief description of your background as to why you're qualified as an expert?

A. Sure. I have a Ph.D. in electrical engineering, and during my career I have worked on optical, electrical, and display systems, and I have a specialization in color science, which is the study of color.

Q. And --

THE COURT: Hold on, Mr. Saba. There's something wrong with that mic.

MR. SABA: Let me get a little closer.

THE WITNESS: I think I turned my head.

MR. SABA: Can you bring it closer to your mouth?

THE WITNESS: If I go like this?

MR. SABA: That's right.

THE WITNESS: How's that?

THE COURT: You can actually hold it if you'd rather do that.

THE WITNESS: I think that would be a bad idea for

me.

Okay. Is that better?

MR. SABA: Better.

THE WITNESS: Okay.

MR. SABA: Okay.

THE WITNESS: Would you like me to repeat?

MR. SABA: Please.

A. Okay. I have a Ph.D. in electrical engineering, and throughout my career I have worked in electrical, optical, and display systems, and I have a specialization in color science, and that's just the study of color and how humans perceive it.

BY MR. SABA:

Q. Do you have a specialty in photonics?

A. Yes. My electrical engineering degree -- my Ph.D. in electrical engineering has a specialization in photonics. I studied at the Center for Research in Electro-Optics and Lasers.

Q. All right. Did you obtain any ASUS displays in this case?

A. Yes.

Q. Do you see them in the courtroom today?

A. Yes. They're right up front here.

Q. Now, the court reporter can't under -- you can't --

A. They're --

02:12:07 Q. Hang on one second. Hang on one second. I want to
02:12:13 talk to you about the VG248QE 3-axis.
02:12:13 A. Okay.
02:12:18 Q. Do you see it in the courtroom?
02:12:20 A. I do.
02:12:20 Q. Which one is it?
02:12:22 A. It's at the center of the room in front of the podium.
02:12:25 Q. Very good. And I want to talk to you a little bit
02:12:27 about that, but before I do, to be clear it's the one
02:12:30 that's on with the demonstrative, correct?
02:12:32 A. Yes.
02:12:33 Q. All right. Yesterday during opening statements,
02:12:36 opposing counsel, Mr. Oliver, had stated a few things about
02:12:39 your opinions of infringement in this matter, okay?
02:12:43 A. Yes.
02:12:43 Q. And you read that testimony yesterday, correct?
02:12:46 A. I did.
02:12:46 Q. And he gave a little demonstration with an ASUS monitor
02:12:52 similar to the one that you tested, right?
02:12:54 A. Yes.
02:12:54 Q. All right. He said, quote, it's going to become
02:13:02 blatantly obvious that the other color change when you
02:13:06 change -- the other colors change when you change red.
02:13:07 That's one of the reasons ASUS says they don't infringe
02:13:10 this patent, because they don't.

Do you agree with that -- opposing counsel's statement?

A. No.

Q. Mr. Oliver also said in opening statement: As we listen to the testimony and as we listen to Dr. Ducharme, who tested only a couple of colors, he's not going to be able to tell you actually what happened.

Are you going to be able to tell the ladies and gentlemen of the jury how you tested the monitors to reach your infringement conclusion?

A. Yes.

Q. Let's talk about that right now, sir. I will point you to --

MR. SABA: Your Honor, may he approach?

THE COURT: He may, yes, as long as he has a microphone.

MR. SABA: I can -- is that thing going to work?

MR. BENNETT: May I approach, Your Honor?

THE COURT: Yes, you may.

BY MR. SABA:

Q. Now, Dr. Ducharme, this is going to be a little tricky because I think you might have to face -- no, I guess you could face the jury while you're explaining. I want to ask you --

A. Hang on.

02:14:19 Q. I want to ask you if you would please describe briefly
02:14:26 what we're looking at here, what's been marked as P-11.
02:14:33 A. Okay. This is a 3-axis ASUS monitor.
02:14:37 Q. What is a 3-axis ASUS monitor?
02:14:41 A. A 3-axis monitor is one that you can change in red,
02:14:46 green, and blue. It has three colors, and so we call it a
02:14:52 3-axis monitor.
02:14:52 Q. All right. So we have three colors on the screen, and
02:14:55 it's got some verbiage there. What does that mean?
02:15:00 A. Okay. So I'm showing -- I'm showing -- I wasn't sure
02:15:08 how my hand was going to look. I'm showing three vertical
02:15:14 bars, and everyone can see that.
02:15:16 So what I'm pointing to here is on the left side
02:15:19 of the screen and the red bar, I'm showing the amount of
02:15:22 red, green, and blue in this vertical bar. In the center
02:15:26 of the screen, I'm showing the amount of red, green, and
02:15:32 blue. And, once again, over here on the right side of the
02:15:35 screen, I have blue.
02:15:36 So I have my colors red, green, and blue. And
02:15:40 these are just the percentages, just so you can see that
02:15:43 this is all blue over here and this is all green and this
02:15:46 is all red. It's just a very simple test pattern.
02:15:50 Q. I would like for you to demonstrate for the jury what
02:15:54 would happen when you change the red axis from 100 to 0.
02:16:02 A. Okay. So when we say change, it means I need to get

into the on-screen menu.
Q. Oops. It's a little clunky.
A. Yeah, I apologize. I'm usually sitting in front of a monitor when I adjust it.
Okay. So I have gone down a few menus, but as you can see, there's clearly a red, green, and blue slider that I can change the value of. And hopefully if I don't move the monitor, it doesn't get blurry.
So what I'm going to do now is I'm going to reduce red, and I want you to watch the screen as I do this and see what happens. And you're probably thinking, you know, I was expecting that. But as I change the slider and change the red axis, I'm selecting the red color, the red changes on the screen.
So what changes? The red. What does not change? The green and the blue, and that's exactly what I would expect to happen.
Q. Dr. Ducharme, let me ask you a follow-up question. Can you tell the ladies and gentlemen of the jury why green and blue doesn't change in this example?
A. Green and blue don't change -- oops -- because I have not selected to change the green and the blue.
Also, I want you to notice part of the reason we put the numbers here is you can see there's no red in the green color, and there's no red in the blue color. And

that's really important. It's really important to understand that. Okay.
Q. Okay. Is that back to 100?
A. Sorry. I don't know what that is.
Q. Oh, this right here? Oh, that's a screen saver.
A. Okay.
Q. All right. We're back to normal. You ready to go? All right.
MR. SABA: Denver, could you please pull up that slide -- oh, you've got to do it here. I'm sorry. I apologize.
BY MR. SABA:
Q. All right. Dr. Ducharme, now, I'm going to put on the screen six colors. Do you see that?
A. Does everyone see the six colors?
Q. I'm going to ask you a question, sir. Please explain to the jury why there are six colors here and the significance of the RGB numbers.
A. There's six colors because this is a 3-axis monitor, and what I want you to see is that when I change the sliders, one of the colors, red, green, and blue, on a 3-axis monitor, colors that contain red are going to change. I would expect that. So when I move this red -- yeah.
Q. Yeah, please don't do that. Let me give you a

question.

Would you please tell the jury -- same drill. You drop -- so red right now is at 100, correct?

A. Yes.

Q. All right. If you drop red to 0 -- I'm not saying do it -- I'll say in a second -- what will change on the screen? And I've got stickies if you'd like to use those. If not, you can just point.

A. Yeah, I'll just point. What's going to change is any color on the screen that contains or includes the red color. So I can see this is going to change. It has red, the red stripe on the left.

On the far right, we see magenta which has red, and we see yellow on the far right and that -- I'm sorry. Did I say red? I see yellow on the right side, and that contains red, as well. So these two colors I would expect to change, along with red, and I would expect that green, blue, and cyan would not change.

THE COURT: Hold on just a moment, Mr. Saba.

MR. JOSHI: We have an objection, Your Honor.

THE COURT: What's the objection?

Mr. Oliver, just let Mr. Saba speak -- I mean, Mr. Joshi speak.

MR. JOSHI: This is in violation of the Court's claim --

02:20:39 THE COURT: I'm sorry.
02:20:40 MR. JOSHI: Violation of Court's claim
02:20:42 construction order.
02:20:43 THE COURT: All right. What's --
02:20:48 MR. JOSHI: The red and the blue are equal, and
02:20:50 red and the green are equal on the right, and it doesn't
02:20:57 have red under the claim construction order because they
02:21:00 can't be equal.
02:21:01 THE COURT: I'm going to let you cross him on
02:21:04 that. Overruled.
02:21:05 MR. SABA: Thank you, Your Honor.
02:21:05 BY MR. SABA:
02:21:09 Q. Okay. Dr. Ducharme, will you please continue? I would
02:21:12 like for you to drop the red and explain what we're looking
02:21:17 at here.
02:21:35 A. Okay. So I'm back to the menu, and I'm going to now
02:21:38 change red by decreasing it. And all the colors there that
02:21:48 have a red component are going to change. All the colors
02:21:55 that do not have a red component do not change. That's why
02:21:59 I'm moving that slider back and forth so you can maybe look
02:22:02 at one of these colors and see the change.
02:22:07 Q. Can you please generally explain how the product is
02:22:12 making the change with regard to the pixels?
02:22:17 A. Yes. The brain inside this monitor, the
02:22:24 microprocessor, right, we think of it as the brain, when I

move the slider, I'm providing a change value, a delta value. And so the brain inside the monitor looks at all the incoming pixels, this pattern that I'm showing, and it picks out all of the colors, all of the pixels on the screen that contain whatever color I'm changing. If I'm changing red, they pick out all the pixels on the screen from -- start in the left corner, pixel one. It takes that pixel, looks to see if it has red in it -- that's the value I'm changing -- and it puts it in a bucket on the right. These are pixels I'm going to change. Goes to the next pixel. Let's say it's somewhere in the middle of the screen in the blue. It looks at that pixel and says: Does it have any red in it? Should I change it? It doesn't, so it puts it in the left bucket which is the don't change pixels.

So once it's gone through every pixel on the screen, it now has a bucket of changed pixels, right? It applies the change that I have selected with the slider, and then it puts all the pixels back together again and displays the image on the screen. And that's essentially what the brain inside the monitor is trying to do.

MR. SABA: Thank you, Dr. Ducharme. One more image for this Plaintiff's 11, please.

BY MR. SABA:

Q. All right. Yesterday opposing counsel, during opening

statement, showed a pattern like this and changed the color on a similar 3-axis display. I'd like for you to explain to the jury before you do that here, what will happen and what result, please?

A. Okay. So I guess this is the slide -- I understand that this is the slide that was used yesterday. It contains lots of different colors, but it will not behave any differently than what I already described.

In the center is a horizontal bar going from the left to the right, and it's red. Above that is green and then blue, yellow, magenta, and cyan. These are -- these are the colors we had on the previous slide. They're just -- on the screen, I will say, slightly more confusing way.

Okay. So when I change the red slider, that's the color I've selected to change. When I go from 100 down to 0, the colors that would change are any color with red, my chosen change color.

So the horizontal bar in the middle, the red bar will change. Green won't change. Blue won't change. Yellow has some red in it. We showed that on the previous slide. That will change. Magenta will change, and cyan won't change.

Down at the bottom, instead of going to white, they go from black, so these are just different brightness

levels, and I think you can see that. But you'll also see the same change in colors down at the bottom of the screen. You'll see red change. Green and blue won't change. Yellow and magenta will change. Okay.

MR. JOSHI: Your Honor, I don't want to keep interrupting. Would you give me a running objection to the demonstratives?

THE COURT: To the demonstratives?

MR. JOSHI: For claim construction violation, yes.

THE COURT: All right. Well, I mean, I'm going to let you cross him on that. We'll see -- we'll see where that goes.

But, Mr. Saba, to the extent there's an objection here, do you have any opposition to a running objection?

MR. SABA: No, Your Honor.

THE COURT: Very well.

A. Okay. So now I'm going to move the red slider. And so we knew that the red, yellow, and magenta were going to change and the green, blue, and cyan would not change. It's what we would expect to happen.

BY MR. SABA:

Q. Thank you, Dr. Ducharme. Now I want to talk to you about -- don't go anywhere yet, but let's --

MR. SABA: I'm going to ask Denver if he will kindly switch us out, and you have that microphone in your

hand? Yes?

THE WITNESS: Yes.

BY MR. SABA:

Q. All right. While Denver is graciously switching out this other monitor, why don't you tell me a little bit about what we're looking at here?

A. This is another monitor that I analyzed. It's bigger than the previous monitor, but it's also -- instead of only having 3-axis color control, it has 6-axis color control. What that means is I can control or change the color of red, green, and blue, but also cyan, magenta, and yellow as 6-axis control. I can also do that in both hue and saturation. There's a lot of control with this monitor.

MR. SABA: Do you need help to move it? Like this?

THE WITNESS: Yeah, I think it's better --

MR. SABA: Yeah, thank you.

BY MR. SABA:

Q. It's a little dizzy, but that's okay. Let's move on so we can get through this.

MR. SABA: I think that's okay. Thank you.

BY MR. SABA:

Q. Dr. Ducharme, you said this is a 6-axis ASUS color control monitor, correct?

A. Yes.

02:28:21 Q. What are we looking at here?
02:28:23 A. This is the same pattern we started with a minute ago,
02:28:27 so I've got red on the left, green in the center, and blue
02:28:31 on the right, and I'm showing the amounts of each one of
02:28:34 those colors.
02:28:35 Q. Now, I want to -- I'm going to just lay the framework
02:28:38 for this. I'd like for you to talk about briefly the same
02:28:43 exercise we did for the 3-axis but with regard to the
02:28:46 6-axis. And if you could please start with this slide and
02:28:50 explain the same demonstration, dropping red.
02:28:54 A. Okay. So I'm going to go into the On-Screen-Display.
02:29:13 In this monitor, it's in the advanced setting. And I've
02:29:15 gone into the 6-axis saturation. And you can see I've got
02:29:19 sliders and changeable color values: red, green, blue,
02:29:24 cyan, magenta, and yellow. The neutral value or the center
02:29:31 value is 50, so that's the value that I'm at.
02:29:33 So as I change the slider, I would expect any
02:29:37 color with red will change, and the colors that will not
02:29:43 change are the ones that don't have a red component.
02:29:57 Get back to 50.
02:30:03 Q. I forgot to ask you a question on the 3-axis. First of
02:30:08 all, we're looking at what's been marked as Plaintiff's 12.
02:30:12 But with regard to Plaintiff's 11, was there a hue or
02:30:16 saturation selection for the 3-axis or just color change?
02:30:26 A. The red, green, and blue is a change in saturation on

02:30:31 the 3-axis monitor that I demonstrated on.
02:30:33 Q. And how is that different than the 6-axis?
02:30:36 A. Well, the 6-axis has six axes. It has additional
02:30:49 colors.
02:30:49 Q. So what I'm asking you is this. For the 6-axis that
02:30:55 we're looking at, they have six for hue and six for
02:30:59 saturation, correct?
02:31:00 A. Yes.
02:31:00 Q. And for the 3-axis, it's just RGB for saturation; is
02:31:05 that what you said?
02:31:07 A. Yes.
02:31:07 Q. All right. Here is a picture of the same -- it's the
02:31:10 second slide we used on the first one, if you will look at
02:31:13 the monitor here, and we see six colors.
02:31:18 Before you change it, can you please explain to
02:31:21 the jury what you anticipate will happen, change it, and
02:31:24 then tell us what happened?
02:31:26 A. Sure. So in this pattern -- you've seen the pattern
02:31:34 before -- we've got some additional colors, right? We've
02:31:37 got red, green, blue, and then cyan, magenta, and yellow.
02:31:40 And I'm showing, once again, the amount of red or -- which
02:31:46 colors contain red and which don't.
02:31:49 So I've got -- on the far left, I've got my red
02:31:53 and then green, blue. The cyan doesn't contain any red.
02:31:57 And the magenta contains red. And I'm pointing at the red

02:32:02 value on magenta. And then the yellow also contains red.
02:32:05 So what will change? What would I expect to
02:32:08 change? The red bar, the magenta bar, and the yellow bar.
02:32:13 What should not change? Anything with the red
02:32:17 component, so that's the green bar and the blue bar and the
02:32:20 cyan bar.
02:32:22 So I'm now going to change the value. I'm sorry,
02:32:34 I misspoke. I misspoke because I described it for a
02:32:41 3-axis.
02:32:42 Q. Okay. Just continue. You're talking about a 6-axis,
02:32:45 fair?
02:32:45 A. Yes. I need to correct that. Because this is a
02:32:53 6-axis, how it's different than a 3-axis is that I've got
02:32:59 three additional colors that can be adjusted. And so it's
02:33:02 very important to understand that when I change red, red
02:33:05 will change, as it's doing now, but magenta and yellow are
02:33:11 their own independent colors in a 6-axis monitor.
02:33:17 And so as I move the red slider, they will not
02:33:20 change. So the brain in this monitor has the ability to
02:33:29 see these additional colors and know whether or not to
02:33:31 change them.
02:33:32 Q. You dropped the color, and we talked about that,
02:33:35 correct?
02:33:35 A. Yes.
02:33:36 Q. All right.

02:33:36 MR. SABA: Can you put that back up to 50? We got
02:33:39 one more slide. The checkerboard, please.
02:33:48 A. Okay. So we've seen this demonstrative. It was used
02:33:54 by opposing counsel the first day.
02:33:57 And, once again, I would expect the colors to
02:34:02 change when I move the slider. In this case, the bars are
02:34:09 red in the center, green above that, blue, yellow, magenta
02:34:14 and cyan.
02:34:15 But, remember, this is a 6-axis monitor, so when I
02:34:20 vary the red slider, the only bar here that should change
02:34:25 is the red bar. All the other bars should stay the same.
02:34:28 So let's test that.
02:34:36 So as you can see, when I change red, none of the
02:34:41 other bars change, unless I go in specifically to, let's
02:34:47 say, magenta. Now only magenta changes, and that's because
02:34:57 this is a 6-axis monitor. It's a bit different than
02:35:02 the 3-axis.
02:35:02 BY MR. SABA:
02:35:04 Q. Thank you, Dr. Ducharme.
02:35:07 I think you can go back to the penalty box there,
02:35:10 just don't trip on that wire, and I'm going to see if we
02:35:14 can get this thing down while I keep asking you questions
02:35:14 in the interest of time.
02:35:19 MR. SABA: If that's okay, Your Honor?
02:35:20 THE COURT: Yes.

BY MR. SABA:
Q. Dr. Ducharme, I want to talk to you about your opinions.
All right. I'm going to start with the summary.
A. Okay.
Q. All right. In order to expedite things, what is at issue here is the '435 patent, correct?
A. Correct.
Q. All right. And, generally, what does the '435 patent invention involve?
A. The '435 patent is a system and method for selecting and adjusting individual color without changing the other individual colors.
Q. And you understand that ASUS -- Defendant ASUS is accused of infringing the '435 patent?
A. Yes.
Q. And what types of products allegedly are -- what are the accused products, sir?
A. Displays.
Q. What were you asked to do concerning the ASUS accused products?
A. I was asked to compare the operation of the ASUS products with the method described in the '435 patent.
Q. What was the conclusion of your analysis?
A. That the ASUS products infringe on the '435 patent.

02:36:46 Q. And you also provided some other opinions, rebuttal
02:36:49 opinions that we'll get to a little later. But I want to
02:36:52 talk to you about the -- your infringement opinions, okay?
02:36:56 A. Yes.
02:36:58 Q. All right.
02:36:59 MR. SABA: Your Honor, we would like to formally
02:37:02 offer -- formally offer P11 and P12. Those are the
02:37:06 monitors that we had just discussed with Dr. Ducharme.
02:37:09 THE COURT: Any objection to those?
02:37:11 MR. JOSHI: Not as long as we can do the same.
02:37:13 THE COURT: Oh, of course, yeah.
02:37:15 MR. SABA: No problem, Your Honor.
02:37:16 THE COURT: Very well. They will be received.
02:37:16 BY MR. SABA:
02:37:20 Q. Dr. Ducharme, if --
02:37:20 MR. SABA: Denver, if you can kindly put on Slide
02:37:24 17.
02:37:25 BY MR. SABA:
02:37:25 Q. Now, do you see this picture here?
02:37:27 A. Yes.
02:37:27 Q. All right. Now, what are we looking at?
02:37:31 A. This is a picture that I took last week on the PA328
02:37:36 monitor that I demonstrated. That was the largest -- the
02:37:39 larger 6-axis monitor.
02:37:41 And I just went on the internet and found a

picture of a scarlet macaw and a blue and gold macaw and put it on the screen, and then changed the hue value. So there are -- there is a 6-axis slider for saturation and for hue.

MR. SABA: And, Denver, if you could go to the next slide, please.

BY MR. SABA:

Q. What are we looking at here?

A. So the hue of the -- only the red color in the parrot picture has been changed from 50 to 100. And when you do that, you're changing the hue. You're moving the color red or any pixels in the image -- red pixels in the image, you're moving it from red to another color. That's changing hue.

And in this case, when you go from 50 to 100, it moves those red pixels towards yellow.

MR. SABA: Okay. Denver, you can...

BY MR. SABA:

Q. I want to talk to you generally about the '435, sir, okay?

Do you remember what year the patent was applied for?

A. It's -- yes. 2001.

Q. Okay. I've got a slide for you on that one. Give me one second. I apologize. Apologize.

What's a priority date, Dr. Ducharme?

A. A priority date is the earliest date to which a patent has rights.

Q. And what's the priority date of the '435?

A. August 2001.

Q. Give me one second. There we go.

And see the highlighted date, August 6, 2001?

A. Yes.

Q. Is that the date that you were talking about?

A. Yes.

Q. Is that the priority date?

A. I believe that is the priority -- yes, the priority date is August 6, 2001.

Q. And is the patent -- the '435 patent valid or is -- has it expired?

A. It's valid.

Q. In the early 2000s, can you please give the ladies and gentlemen of the jury an idea of the problem that existed in the -- at the time -- before the patent was invented?

A. Before this invention, you had hue and saturation control on your display. But when you moved that delta value and you moved that slider or turned a knob, it changed all of the pixels on the screen. So it changed all the -- all the pixels of every color.

So in here, you can see that on the left, we have

no saturation, essentially black and white, and on the right, we have maximum saturation. And, remember, saturation is the vividness of the color. So it looks very bright and colorful on the right.

Q. And the purpose or the summary of the invention in your own words, sir?

A. In summary, the '435 patent is a method for taking incoming video, allowing the user to select a color to be changed, the monitor then uses arithmetic and logical operations to select all the pixels in the image that have that color that's been selected to change. It then performs the color change, the delta value, reassembles the image, and redisplays it for you.

So in digital real-time video, it allows you to select and adjust the color, make the color change and have it be displayed.

Q. Thank you, Dr. Ducharme. You may have beaten me to the punch here because I want to talk briefly about Claim 1. And -- but I just want a general overview about -- I think you were describing the steps.

Let's start with this. Claim 1 is an independent, right?

A. Yes. Claim 1 is the -- an independent claim.

Q. All right. I don't -- we don't need to go to detailed in this, but I will ask you to explain briefly. This is

Step 1(a) of Claim 1. Just take it -- take us through this very briefly.

A. Okay. As I described previously, a little briefer, so Part (a) is you receive and characterize the video signal. It's a digital video signal, and it has a format. So that's what we mean by "characterizing." So it receives the video, digital video image.

Q. And then Step 1(b).

A. "Selecting to independently change" means that you provide some -- some way to a user to submit a delta value, a change color value, like a slider on the screen, and that can be in both hue and saturation.

Q. Step 1(c), please.

A. So in (c), now that the user has decided what color they want to change, the red color, they give that slider a value.

In Step (c), the brains of the monitor looks at all of the pixels -- each one of the pixels one by one -- or each one of the pixels and identifies which ones of those pixels -- which pixels should be changed because they have the same color that's -- the user has decided to adjust.

So once it's -- once the monitor has decided which pixels to change, it then also has a bunch of remaining pixels that aren't to be changed. But -- and very

important to this, is it does all of this in a -- in a -- I say the monitor's brain, but it's a microchip. It has firmware, source code that it's running. And the way that source code works is it uses arithmetic and logical operations: plus, minus, greater than, less than.

Q. Okay. We're going to go to 1(d), please.

A. So once you have determined which pixels need to be changed, you change them, and then you put the image back together.

Q. And the last step is 1(e).

A. And now you display it. So it's a method. You receive it, change it, display it.

Q. Dr. Ducharme, do you know how many asserted claims -- or what the asserted claims are in this case?

A. Yes.

Q. What are they?

A. 1 through 3, 5 and 6, 13 through 15.

Q. Thank you, sir.

I want to talk to you about -- switch topics here, and I want to talk to you about the ASUS accused devices, okay?

We talked about -- you talked earlier about there being displays at issue. My question is how many types of accused product families have been accused in this matter?

A. 135.

02:45:34 Q. And of those types, how many total displays are there?
02:45:44 A. 169.
02:45:46 Q. I think -- you see this slider right here, that's
02:45:52 accused families, correct?
02:45:54 A. Yes.
02:45:54 Q. And you refer to all of those as accused devices?
02:45:57 A. Yes.
02:45:58 Q. Okay. How did you categorize these displays?
02:46:03 A. They're divided into 3-axis displays and 6-axis
02:46:09 displays.
02:46:10 Q. And we talked about the difference between 3-axis and
02:46:14 6-axis. Do the accused products include all monitors that
02:46:19 ASUS makes?
02:46:20 A. No.
02:46:24 Q. Do you have any idea how many additional devices have
02:46:28 not been accused?
02:46:29 A. No.
02:46:32 Q. Okay. In your original expert report -- you served an
02:46:41 expert report in this matter, correct?
02:46:42 A. Yes.
02:46:42 Q. And they contain your infringement and validity
02:46:46 opinions?
02:46:46 A. Yes.
02:46:46 Q. And in your original report back in -- I think it was
02:46:49 September of 2020, did you include analysis of ASUS

projectors?
A. Yes.
Q. Do you remember how many projectors were at issue?
A. There were four projectors.
Q. Are they still asserted in this case?
A. No.
Q. Just monitors?
A. Yes.
Q. I forgot to ask you this question. I apologize. I'm going to have to ask you.

We talked about the monitors that you tested, right? Will they work -- can you do the color change if there's anything -- if there's not anything connected to the monitor?

In other words, if I don't have a computer or a cable box or whatever connected to it, can you pull up the color changes in the menu and make it change colors?
A. I don't know.
Q. Okay. I'm sorry. I apologize for that. I should have...

All right. You said that you rendered an opinion on infringement. Let's talk about your analysis that underlies that opinion, okay?
A. Yes.
Q. What did you generally do to formulate your opinion

that the accused products infringe?
A. I reviewed the '435 patent and all of the claim limitations that were asserted in the case through the eyes of the Court's construction, how the terms in these claims were defined. And I compared those to the accused products in three ways.
I looked at all of the technical documents and user manuals that we could find -- that I could find. I reviewed source code for the brain that's inside the monitor, and then I also tested the monitors.
Q. We're going to talk about all three of those, okay? Let's start with the technical materials. You said that you reviewed product manuals, correct?
A. Yes.
Q. All right. To your right, there are three binders. They're marked P-26-1 through P-26-135. Do you see those?
A. Yes.
Q. What are they? And feel free to pick them up and peruse them.
A. Volume I is user's manual from the ASUS products.
Q. Okay. Could you please just confirm the same for II and III?
A. Volume II is also user manuals, and Volume III is also ASUS display user's manuals.
MR. SABA: Your Honor, at this time we'll offer

P-26-1 through P-26-135.

THE COURT: Any objections?

MR. JOSHI: Subject to our objections.

THE COURT: Subject to the previous objections?

MR. JOSHI: Yes.

THE COURT: All right. They will be received.

MR. SABA: Thank you.

BY MR. SABA:

Q. Thank you, Dr. Ducharme. Do you have -- can you tab over to 30 very quickly here? Let me be clear. P-26-30. First binder. Yeah, that's correct.

A. I'm at P-26-30.

Q. Yes, sir.

MR. SABA: May I approach, Your Honor?

THE COURT: You may.

BY MR. SABA:

Q. Okay. Dr. Ducharme, what are we looking at here?

A. This is a user manual for the P248 series monitor.

Q. Could you -- maybe it would be easier if we just did it on the screen. I'm showing you a copy of what's been published. Oops, pardon me.

MR. SABA: Can we go to Page 3-2, Denver, please? I don't have an actual PDF page.

BY MR. SABA:

Q. Okay. Dr. Ducharme, do you see that on your screen?

02:52:40 A. Yes.
02:52:41 Q. All right. What is the -- do you see the box function,
02:52:43 brightness, contrast, saturation hue?
02:52:46 A. Yes.
02:52:46 Q. I mean, can you explain what this is, briefly?
02:52:49 A. It's just explaining in the different modes what
02:52:54 options the user has control of.
02:52:56 Q. Does the -- does this particular display have the
02:53:04 ability to change all colors, as well as individual colors?
02:53:12 A. Yes. There are separate saturation and hue controls.
02:53:16 Q. But your analysis was concerned with individual colors,
02:53:19 correct?
02:53:19 A. Yes.
02:53:22 MR. SABA: And, Denver, if we could go to the next
02:53:26 page, 3-3. And if you could highlight that -- just that
02:53:29 top half of those menus. Okay.
02:53:34 BY MR. SABA:
02:53:34 Q. I want to ask you about, for the record, what is an OSD
02:53:38 is. Dr. Ducharme, do you know what an OSD is?
02:53:40 A. Yeah. It's an acronym for On-Screen-Display.
02:53:46 Q. And is that just the menu on the device?
02:53:49 A. Yes.
02:53:55 Q. What -- were the menus on the device across the devices
02:53:58 that you looked at for the most part the same? Let me --
02:54:03 that's a bad question. Let me rephrase it.

02:54:07 For the 6-axis monitors, were the OSD menus
02:54:13 relatively the same, in your experience?
02:54:19 A. Can you clarify that?
02:54:20 Q. Yeah. Did the 6-axis menus -- could you navigate them?
02:54:25 Did the functionality appear to be the same for the 6-axis
02:54:28 products?
02:54:29 A. Yes.
02:54:30 Q. And the same question for the 3-axis products.
02:54:37 A. Yes.
02:54:47 MR. SABA: And, Denver, if we could go to 3-9,
02:54:51 please.
02:54:52 BY MR. SABA:
02:54:53 Q. Okay. And I think we talked at -- a third from the
02:54:59 bottom, please. This is a troubleshooting section here,
02:55:07 Dr. Ducharme?
02:55:07 A. Yes.
02:55:08 Q. And it says: Screen image has color defects. White
02:55:11 does not look white.
02:55:12 Can you explain to us what the remedy is here?
02:55:17 A. From this troubleshooting frequently asked questions,
02:55:24 FAQ, ASUS is instructing their users to adjust the red,
02:55:29 green, and blue color settings to fix the defect.
02:55:37 Q. When you say defect, what do you mean?
02:55:39 A. I mean a difference from what someone might desire.
02:55:45 Q. Real world example, please.

02:55:50 A. Your vacation pictures look kind of reddish, and you
02:55:56 don't want them to on your monitor. So you can adjust the
02:56:01 red, green, and blue sliders so that your pictures match
02:56:03 your memories, I guess you could say.
02:56:07 Q. Does that have anything to do with gain?
02:56:13 A. Gain could be one way that you would describe this.
02:56:19 Q. Does it have anything to do with hue or saturation?
02:56:24 A. I would need to know more about, you know, the device.
02:56:36 It could have -- it could be -- it could change both hue
02:56:41 and saturation. In the 3-axis that I demonstrated, it was
02:56:45 saturation.
02:56:55 Q. Okay. I'd like to -- I'm sure this has been offered.
02:57:00 Dr. Ducharme, let me --
02:57:02 MR. SABA: May I approach, Your Honor?
02:57:04 THE COURT: You may.
02:57:06 BY MR. SABA:
02:57:06 Q. Let me show you -- I'm showing you what's been marked
02:57:59 as Plaintiff's 17, sir. Do you recognize this document?
02:58:02 A. Yes.
02:58:03 Q. And what do you recognize it to be?
02:58:05 A. It's product literature for the ProArt display PA248.
02:58:15 Q. Was that the manual that we were looking at earlier?
02:58:20 A. Yes.
02:58:20 Q. Okay.
02:58:23 MR. SABA: Your Honor, we'd offer Plaintiff's 17.

THE COURT: Any objection?

MR. JOSHI: No objection.

THE COURT: It'll be received.

MR. SABA: Thank you.

Denver, will you kindly put that on?

BY MR. SABA:

Q. This is a picture of a colorful copy of 17. I'd like for you to turn to Page 4. It's a little small, but I'm going to read it. Under this monitor it says: ProArt display PA248QV is a 24.1-inch monitor designed to satisfy the needs of creative professionals from photo and video editing to graphic design.

And then it says: ProArt display PA248QV is a factory calibrated and Calman verified to deliver superb color accuracy Delta E less than 2.

Did I read that right?

A. Yes.

Q. What's Delta E less than 2 mean?

A. Delta E in color science is a measure of color difference.

Q. Can you elaborate?

A. Okay. So for any two colors, we can measure their difference using a formula and the result of the formula is Delta E.

In general, most people -- let me repeat that.

It's generally accepted that humans cannot see color differences less than 2. So this is a very good monitor. It has a color difference less than 2. So you will not be able to tell if you have two reds next to each other if they're -- they'll be exactly the same color is the point.

Q. I forgot to ask you this earlier. I believe that when I was in elementary school, the primary colors were red, yellow, and blue, but we're talking about red, green, and blue. I may have gotten that wrong. What's the difference with light?

A. Okay. When you're talking about inks and you mix inks together and mix paints together or crayons, that's called subtractive color addition. So when you have light, that's -- "additive color mixture" is the phrase. So if you take red, green, and blue light of equal parts and you mix it together, you get white.

So it is a little bit different when we think about how these colors are created on a monitor. But red, green, and blue are just component colors of light that can make all the colors of the rainbow.

Q. And if -- thank you, sir.

MR. SABA: Denver, can you go to the next page, please?

BY MR. SABA:

03:01:33 Q. There is -- if you look at your monitor, sir,
03:01:33 there's -- it's -- it looks to be cut off. If you scroll
03:01:36 down -- there you go -- see that bottom right-hand section?
03:01:39 That's it.
03:01:40 Dr. Ducharme, I want to ask you about this
03:01:42 statement here. It says: High color fidelity for truly
03:01:46 expressive hues.
03:01:48 Can you tell us a little bit about that?
03:01:53 A. Can you clarify your question?
03:01:55 Q. Sure. Are we still talking about the Delta E less
03:01:58 than 2 with regard to hues here?
03:02:02 A. Yes. It's color difference, so it's a hue difference.
03:02:11 What they're --
03:02:13 Q. You wanted to add something?
03:02:15 A. What this is saying is if you -- if you're working as a
03:02:19 professional and you're making, say, brochures or some
03:02:24 material that the color really matters, when you're working
03:02:28 on it and you've selected a very specific color, when you
03:02:34 print it and your work is done, it won't differ from what
03:02:38 you see on the screen. So that's why this is such an
03:02:41 important feature.
03:02:42 Q. One more question on this document.
03:02:46 MR. SABA: Denver, it's the upper left-hand side.
03:02:50 See that little graph? That's it.
03:02:53 BY MR. SABA:

03:02:53 Q. Dr. Ducharme, what is that graph here? Do you know
03:02:57 what that is?
03:02:58 A. I do.
03:02:58 Q. Please explain.
03:03:03 A. This is what's referred to as the tongue. It's the
03:03:09 1931 CIE XY color space. Color space is just an
03:03:16 organization of colors so we can look at their differences
03:03:19 or look at the different values. There are many different
03:03:24 color spaces. They call this the tongue because it looks
03:03:28 like a tongue. It has -- it's kind of a strange shape.
03:03:31 The way it's formed is we're plotting in x and y,
03:03:35 so x is on the bottom -- that's our x-axis. And y is on
03:03:38 the left -- that's our y-axis. Around the edge of this
03:03:42 funny shape are all pure wavelengths of light, so they're
03:03:46 all pure colors. And that's what defines those and this
03:03:49 shape and their location on this x and y plot.
03:03:54 The white triangle that you see is plotted from
03:03:59 the component colors in the monitor. So I don't have a
03:04:05 laser pointer or any way to point to this, but I'm going to
03:04:10 point to the far right vertice [sic] of the triangle. And
03:04:14 you can see it's in a reddish area. That point is defined
03:04:19 by the color of the red pixel in this monitor. So whatever
03:04:30 red color that is, that's that point on the vertice.
03:04:33 The upper vertice in green is the green pixel or
03:04:37 green component color. And then on the left is blue, and

that's the blue component color.

The white triangle formed by connecting those dots together is what's called the gamut. Those are all of the colors that the monitor can reproduce. Most of us can see all of the colors.

Q. Thank you, sir.

All right. We talked about the documents. In addition to the manuals that we had, P-26-1 through 135, did you also reference other technical materials?

A. Yes.

Q. And can you give the ladies and gentlemen of the jury just a brief summary of what that was, some examples?

A. FAQs and --

Q. Product specs?

A. Product specifications, websites, things like that.

Q. Let's talk about testing. All right. So we talked about the technical materials, and then you said you also tested the two monitors that we had here in the courtroom or we have here in the courtroom, right?

A. Yes.

Q. All right. The first question I have for you is just generally explain what you did to test.

A. Okay. To test the monitors, I needed to measure change in color, that Delta E. That was one of the things that was very important. So I needed to be able to measure that

03:06:20 myself, and you can't do that by looking at the monitor.
03:06:23 Q. Dr. Ducharme, hold on one second.
03:06:30 A. Okay.
03:06:34 Q. I've got a slide for you.
03:06:44 While we're pulling that up, what kind of test did
03:06:48 you perform?
03:06:49 A. I made a color analysis test.
03:06:53 Q. And what did you use to test for color analysis?
03:06:57 A. So in order to measure color difference, that Delta E
03:07:05 value that we saw previously, I needed an instrument to do
03:07:09 that. And so the instrument that we use in color science
03:07:13 is called a color analyzer. It's a specialized really
03:07:18 rather expensive camera.
03:07:19 But you point it at the screen, a monitor -- and
03:07:22 it's designed to do this. You point it at a monitor, and
03:07:25 it gives you numbers, and those numbers fall on that CIE
03:07:34 chromaticity curve, that tongue picture that I showed you
03:07:39 on the previous. So that will give you --
03:07:39 Q. Excuse me. I'm sorry. I didn't mean to interrupt you.
03:07:42 Before we talk about the -- we'll talk about the
03:07:43 actual equipment you used to test in a second. You're
03:07:45 talking about color and how it's perceived, and there's a
03:07:48 demo of an apple there.
03:07:53 That's your image, correct?
03:07:54 A. It is.

03:07:55 Q. Tell us about that.
03:07:57 A. Well, we're kind of far along here, but color is what
03:08:01 humans perceive light to be, right? So it's a response
03:08:08 that our eyes have to light.
03:08:10 And a problem with measuring color as humans see
03:08:13 it, there's no way to connect an instrument to someone's
03:08:17 mind or their eyes to be able to measure what they see. So
03:08:22 you have to ask a whole bunch of people what they see.
03:08:26 So I'm showing you a red apple. You know, the
03:08:29 question you have is, is it a red apple? And we all have
03:08:33 slightly different ideas of what exact color this is.
03:08:36 So the way that you get two numbers in color
03:08:39 science is you ask a whole bunch of people what color they
03:08:43 see under very controlled circumstances. You have small --
03:08:46 and I'm holding my fingers showing a circle, a small
03:08:52 circle. And you have color swatches, and you ask a whole
03:08:56 bunch of people what they see.
03:08:59 When you're all done, statistically you can form
03:09:04 curves that represent the human perception of light into
03:09:07 color. And I don't know if you have that.
03:09:09 Q. I have the next slide here. I think this says,
03:09:12 Standard Observer.
03:09:13 Tell us about these curbs -- curves.
03:09:16 A. So a standard observer is another fancy word for you
03:09:19 asked a bunch of people, and you did a survey of color, and

03:09:29 the result of this is -- are these three curves. There's a
03:09:36 blue curve, a green curve, and a red curve. And that is
03:09:36 how our human eyes convert wavelengths of light to colors.
03:09:41 It forms this standard observer.
03:09:43 A color analyzer utilizes this in a
03:09:49 microprocessor. It detects light, it senses it like the
03:09:50 human eye does, and then it uses a standard observer like
03:09:53 this to output numbers. And if those numbers are accurate
03:09:59 enough, I can use it to make measurements like the color
03:10:02 difference of a monitor.
03:10:03 Q. Let's talk about the color sensor. And I don't know if
03:10:07 I'm butchering that device, but is that a picture of what
03:10:11 you used to test?
03:10:12 A. Yes.
03:10:13 Q. Tell us about that.
03:10:15 A. So Konica-Minolta makes color analyzers. This is the
03:10:19 latest model. It's -- this company is regarded as the best
03:10:22 in what they do, and it's pretty standard to see these in
03:10:26 the industry.
03:10:27 So it's a color camera, very specialized. On the
03:10:31 left is -- it's actually a rubber hood. So when you put it
03:10:35 up against a monitor or a screen, it doesn't allow any
03:10:39 ambient light to enter the measurement, and that's what
03:10:42 this picture on the right is showing you, the proper use of
03:10:48 this hood, they call it.

The most important number and thing about this slide is the tolerance. The tolerance is that chromaticity tolerance that it can measure. So this device puts out a little "x" and a little "y" from the chromaticity diagram, and that little "x" and little "y" have a tolerance of .002. That's a very, very small number. None of us would be able to see differences this small.

Q. You have a picture of this -- I think you said it was the color tongue?

A. Yeah. So what's a little easier to see in this picture is that I've got an x-axis and a y-axis, and I've got a single point here that is maybe a color that I have measured. And all I wanted to show -- show was that it has coordinates. So x equals 0.52, and y equals 0.38.

Those numbers allow us to quantify color. It's very difficult, and you can't do that any other way. You need to use a device that's especially designed to give you numbers.

Q. And I -- this -- what are we looking at here?

A. This is a microscope enlargement of a typical LCD monitor, and it's showing three -- I'm sorry -- it's showing a pixel, and there are three bars, three color bars in the pixel, blue, red, and green, and those are the component colors.

And I spoke earlier about the vertices in the

03:12:33 gamut on that tongue picture, those three sources are the
03:12:38 three vertices on that triangle. So those are how we can
03:12:43 make millions of colors on a monitor.
03:12:45 Q. All right. Let me be clear on this. Going back to
03:12:53 this slide. Do you see the color tongue?
03:12:54 A. Yes.
03:12:56 Q. Did you say that RGB can create any color within that
03:13:01 envelope -- tongue, if you will?
03:13:02 A. Within a triangle defining the wavelengths or colors of
03:13:08 the component colors.
03:13:10 Q. Is that why there are red, green, and blue subpixels
03:13:17 for every pixel on a display?
03:13:19 A. Yes.
03:13:20 Q. Oops, gone too far.
03:13:24 All right. Tell us about how you conducted the
03:13:34 test and what you conducted the test on.
03:13:37 A. Okay. I conducted a test on the 6-axis monitor that
03:13:41 we -- was shown earlier, as well as the 3-axis monitor.
03:13:44 And I used the color analyzer, and, essentially, what --
03:13:50 the way you do one of these tests is you display a color
03:13:55 swatch on the screen. You point the camera at that swatch,
03:13:59 and it measures the color.
03:14:02 The tedious part is you have to get into the
03:14:05 menus, and you change those sliders that we showed earlier,
03:14:09 and there's a lot of permutations. So if you're measuring

hue, you have to move the red slider, say, from 0 to 100 and then back to 50. And then you have to do the green slider from 0 -- and you have to do that for each one of the colors. So it ends up being, as you'll see, a lot of different measurements, but...

Q. Let me ask you this. Was there a testing protocol that you used without, you know, going into the minute details? Can you give us an idea of what that was?

A. Yeah. I mean, first and foremost, whenever you make a measurement, it has to be documented what was done, and that's the protocol that the test was done under.

So testing these -- it's outlined in detail. I won't -- if -- unless you want me to do the detail.

Q. Not in detail, but I'd like for you to step through it, please.

A. You turn the lights off in the room. You let the monitor warm up. You go into a reset function on the monitor so that it's reset all back to its factory settings, and so on and so forth.

But the most important part is that you write it down, and that was written in my report, exactly what was done.

Q. Okay. So did you test both the monitors, whatever, Plaintiff's 11 and Plaintiff's 12 here?

I don't know where they went off to.

03:15:31 A. Yes, I did.
03:15:32 Q. There they are right there.
03:15:34 And tell us about what you found. Let me pull
03:15:40 that up to help you explain.
03:15:41 A. Okay. I mean, there's a lot of numbers here, and this
03:15:44 is -- there's a lot going on, but I'm going to show you a
03:15:47 big table in a moment with all my measurements.
03:15:52 For each row, that's a different test criteria, so
03:15:57 I'm highlighting one of the rows. And you can see the test
03:16:01 color, that's the swatch I put on the screen. And then I
03:16:08 have the value of that swatch in red, green, and blue
03:16:11 values, and these values go from 0 to 255. It's just a
03:16:17 digital representation of the color.
03:16:18 So you can see test red, test green, test blue,
03:16:23 and I have -- they have values of 255, 0, 0. Then you see
03:16:29 delta red, delta green, delta blue, delta magenta, delta
03:16:34 yellow, and delta cyan, those are the slider values. The
03:16:38 neutral value, the middle value is 50.
03:16:42 Under x and y, those are the numbers that my color
03:16:45 analyzer gives me, and those are noted here, because this
03:16:48 is when no change has been applied, what color is red? And
03:16:52 that's the little x and little y that you see.
03:17:00 So now, as you go down these charts, I am changing
03:17:05 one of the colors. So here on Line -- I'm sorry, Row 3,
03:17:11 I'm using the same red test color, and you can see it's

03:17:14 tested red, 255, 0, 0, but then as you look at the sliders,
03:17:20 I have changed the green slider from 50 to 0.
03:17:26 The most important thing to look at is all the way
03:17:29 over on the right, the little x and little y numbers. What
03:17:37 should happen is those numbers don't differ. So the
03:17:41 unadjusted red color should be the standard control (x,y)
03:17:47 value. And then as I change the other sliders, those
03:17:51 numbers should stay the same.
03:17:54 Q. All right. So let me see if I can understand this
03:17:58 because there's a lot of color science going on here.
03:18:01 If -- remember the demonstration you were giving
03:18:05 earlier this afternoon?
03:18:06 A. Yes.
03:18:06 Q. All right. And you used red, green, blue, cyan,
03:18:11 yellow, and magenta, correct?
03:18:13 A. Yes.
03:18:13 Q. So when you tested with this color sensing camera, the
03:18:17 camera we just saw, was it that you would change red and
03:18:27 then measure the other colors to see if there was any
03:18:30 significant or any change?
03:18:40 Bad question. Let me ask you -- see if I can ask
03:18:43 it like this.
03:18:45 What is the significance of the (x,y) coordinates
03:18:49 on the right side of the page?
03:18:50 A. Okay. For the product to infringe the patent, you have

to select and adjust a color, change it, and the other colors that remain should be unchanged.

So what we're testing here is we're using a red color swatch, and we're varying the other sliders. When that happens, when I move a green slider, red shouldn't change, and that's -- it's kind of the reverse of what I demonstrated earlier, but it's easier when you're testing, and you're getting these menus.

So essentially -- it might be easier to see on the bigger chart.

Q. Let me -- let's go to your results.

A. Okay. So is -- this whole block is -- are all of the tests for just the red color. Line 2 is still the neutral control value. And you see under x and y, you see its x and y value. All the rest of the tests, 3, 4, 5, 6, all the way through 12, are me moving the green, blue, magenta, yellow, and cyan sliders. I'm moving them from 0 to 100 and back to 50.

And the most important part is on the right here for x and y, I compared those x and y values to the control value of red, and if they're the same down to .002, the tolerance of this color analyzer, then I list it as pass in the right column.

Q. And so what does "pass" mean, Dr. Ducharme?

A. Pass means the color didn't change, the product

03:20:37 infringed.
03:20:38 Q. Down to what tolerance?
03:20:44 A. It's very important that you look at the numbers no
03:20:47 lower -- no smaller than .002 because the color analyzer
03:20:54 that I have, even though it's the best color analyzer in
03:20:59 the world, it has a limitation. You can't see color
03:21:02 differences smaller than .002. So to look at numbers
03:21:08 changing below that doesn't really make sense. So...
03:21:11 Q. Okay. Now, the 6-axis monitor that we looked at over
03:21:16 here, this -- the larger one, P16 -- sorry, P12, that was
03:21:23 the P328Q monitor, correct?
03:21:27 A. Yes.
03:21:27 Q. And I'm going to show you what looks to be your test
03:21:31 results on that. Can you explain that, please?
03:21:33 A. Yes. I measured a lot of colors in this test.
03:21:38 For hue, there were 67 measurements. There are
03:21:44 six colors but 67 measurements. So those are all the
03:21:49 permutations of measuring a color and changing all the
03:21:53 other sliders, and you can kind of -- you can see that with
03:21:57 the green and the red in the -- in the chart. And then I
03:22:00 repeated those 67 measurements for the saturation controls.
03:22:05 Q. And did you perform the same test for Plaintiff's 11,
03:22:13 the VG248QV 3-axis monitor?
03:22:19 A. Yes.
03:22:19 Q. What result?

03:22:21 A. It was the same result. All of the colors remained
03:22:28 unchanged according to this test. Everything passed. That
03:22:32 product infringed based on that test. There are far fewer
03:22:36 measurements because there are less controls on that
03:22:39 monitor.
03:22:39 Q. And so is it your position, sir, or conclusion that all
03:22:48 of the tests passed as you had opined?
03:22:52 A. Yes.
03:22:53 Q. And that means that the selected color in the two
03:22:56 monitors that you tested didn't change when the other
03:22:59 colors were adjusted?
03:23:01 A. That's right.
03:23:01 Q. No, I think I got that wrong.
03:23:07 What did -- what is -- what is the result of your
03:23:11 test, please, sir.
03:23:13 A. Well, the result of the test is that it demonstrated
03:23:17 that the accused ASUS products that I tested practice the
03:23:25 claim limitations in the '435 patent, and, therefore,
03:23:29 infringe it.
03:23:38 Q. Did you test all the products, Dr. Ducharme? Did you
03:23:40 test all of the accused products?
03:23:43 A. No.
03:23:43 Q. Why not?
03:23:44 A. I needed to verify that the functionality of a
03:23:50 3-axis -- that that 3-axis monitor practiced the method

that's described in the '435. And I needed to do the same for a 6-axis.

That sampling of a 3-axis and a 6-axis was to verify that that functionality that is described in all of the other user manuals and technical literature, that -- you know, what was actually happening. So that's why we did the measurement.

Q. Did you feel like you needed to test all the products to support your opinion?

A. I was here earlier, and Mr. Lin used a phrase that in the manuals, it looked as if it was cut and pasted. We would do the same thing in the software industry when we write computer code. When you've got a function that people like, you're going to cut and paste it and put it in your products. I would have no -- I have no expectation that the products would work any differently.

Q. As part of your analysis -- I'm going to ask you about a little subtopic here. As part of your analysis on evaluating the claims in the accused devices, did you -- do you have an opinion of how frequently a user will adjust the colors on a display?

A. In my experience, at least once when you bring the product home or you get the product and you're setting it up.

Q. And have you used color control on your own personal

display?
A. Oh, yeah, absolutely.
Q. What about -- do you have an opinion on the frequency of color adjustment for any given display?
A. It's generally recommended that you -- you perform this -- these color adjustments every two to 300 hours.
MR. SABA: Your Honor?
THE COURT: Yes.
MR. SABA: Good time to take a break?
THE COURT: Yes, it is. Yes.
Ladies and gentlemen of the jury, we'll take our afternoon break at this time. We'll be in recess about 15 minutes.
COURT SECURITY OFFICER: All rise for the jury.
(Jury out.)
(Recess.)
COURT SECURITY OFFICER: All rise.
THE COURT: Please have the jury brought in.
(Jury in.)
THE COURT: Please be seated.
Mr. Saba, you may continue.
MR. SABA: Thank you, Your Honor.
BY MR. SABA:
Q. Dr. Ducharme, I wanted to -- I forgot to ask you something when we started the demonstration this morning,

and I wanted -- or this afternoon, and I wanted to go back very briefly and ask you a couple of quick questions.

MR. SABA: Denver, if you could kindly put up 33 -- 34. That's it.

BY MR. SABA:

Q. Do you see that on your screen, sir?

A. Yes.

Q. All right. When we were -- when you were demonstrating the change in colors, like you picked red this morning and demonstrated a change on the 3-axis display versus the 6-axis display, why were colors with red components changed in the 3-axis but not the 6?

A. So this pattern shows all six colors. When you display it on a 3-axis monitor, we discussed earlier the brain, the microprocessor inside of the 3-axis monitor performs arithmetic and logical operations so it uses plus, minus, multiplication, division, and equalities, and -- as well as less than and greater than operations to determine which colors should change.

So in a 3-axis, you're selecting the red color and changing it. So because its only a 3-axis monitor, those arithmetic and logical operations look for any color on here, including magenta and yellow, that include red.

On a 6-axis monitor, it's a bit different. Inside the brain, the microprocessor on a 6-axis monitor, the

arithmetic and logical operations are different. It's different software. It makes sense because this isn't a 3-axis monitor, it's a 6-axis monitor.

So it does -- we could -- it could be said, more sophisticated arithmetic and logical operations to determine which colors to change.

So when we did this demonstration and I moved the red slider, red was the only color that changed. Even though magenta and yellow have red in them, they also have source code running in their brains, their microprocessors, that's able to determine that magenta and yellow are not colors to be -- that those are not colors to change.

That's a 6-axis monitor, and these are the six controllable colors.

Q. Thank you, sir. And now I'm -- we're going to talk about source code now, but departing this subject, my question is: Do the claims of the patent limit identifying with specific and arithmetic and logical operations?

A. No.

Q. All right. Let's talk about the source code. First question. What is source code?

A. Source code -- there's different terms for this, but software is something that runs on a computer in an operating system. And firmware is something that runs on a microcontroller or microprocessor, and it runs by itself.

It's firmware. And so there are different names for this, but source code is computer code, computer language instructions that run on a microprocessor.

Q. You see where we're looking at here on the screen?

A. Yes.

Q. What is that?

A. That is one of the identified chips that was in one of the ASUS monitors.

Q. And when you say "chips," you mean microprocessors, correct?

A. Chips, short for integrated circuit, IC.

Q. Does that microprocessor have source code on it?

A. Yes.

Q. And that resides on the actual display -- excuse me -- in the actual display?

A. It's in the actual display.

Q. Who is MediaTek, and what do they do?

A. MediaTek makes image processing color control integrated circuits.

Q. And do you understand that they provide chips for some of the ASUS products?

A. Yes.

Q. Did MediaTek provide you with source code for some of the chips on the accused devices?

A. Yes.

03:56:53 Q. All right.
03:56:53 MR. SABA: And I'm going to -- may I approach,
03:56:54 Your Honor?
03:56:55 THE COURT: You may.
03:56:59 BY MR. SABA:
03:56:59 Q. I'm going to show you -- I don't want to ask the Court
03:57:02 to seal the courtroom, so I don't want to get into the
03:57:03 details, but I'm going to show you that. I want to ask you
03:57:07 what that is?
03:57:07 A. This is source code from MediaTek.
03:57:09 Q. Okay. Did you review that source code?
03:57:11 A. Yes.
03:57:12 Q. And did you provide your analysis of the source code in
03:57:17 your analysis of -- excuse me.
03:57:22 Did your opinions rely in part of the analysis of
03:57:25 the source code?
03:57:25 A. I'm sorry. Can you ask -- repeat the question?
03:57:29 Q. Yes. When you were rendering your opinions, did you
03:57:33 analyze source code to come to that opinion?
03:57:35 A. Yes.
03:57:40 Q. Can you please tell me if the Bates range, the starting
03:57:43 page and the ending page of that -- of those code citations
03:57:47 but without -- just give me the first one. I believe it's
03:57:51 001 and ends with --
03:57:54 A. Yeah, it's MTK code.

03:57:56 Q. That's correct.
03:58:00 A. Okay. MTK code 00 -- 0001.
03:58:03 Q. And then the last page?
03:58:07 A. MT -- MTK code 0236.
03:58:12 Q. Okay. And, again, that is the source code that you
03:58:17 reviewed in performing your analysis in this case?
03:58:20 A. Yes.
03:58:21 MR. SABA: Your Honor, we'll offer Plaintiff's 23.
03:58:24 THE COURT: Any objection?
03:58:25 MR. JOSHI: No.
03:58:26 THE COURT: It'll be received.
03:58:28 BY MR. SABA:
03:58:29 Q. Dr. Ducharme, this is the source code that you -- I
03:58:30 think I just asked you that question. Pardon me.
03:58:37 I don't want to talk about the contents
03:58:38 specifically of what was just offered, Plaintiff's 23,
03:58:39 because of the sensitive nature. But I do want to ask
03:58:42 generally, can you tell us about the source code that you
03:58:46 reviewed?
03:58:47 A. Yes. It was standard computer code, and the thing that
03:58:58 I was most interested in is that it had some functions
03:59:01 denoted for color adjustment and that it utilized
03:59:05 arithmetic and logical operations.
03:59:08 Q. What is arithmetic and logical operations?
03:59:14 A. Arithmetic and logical operations, as defined in the

patent, are plus, minus, multiplication, division, equals, and less than or greater than.

Q. And is that how basically computers communicate -- not communicate -- go ahead.

A. It's a very standard operation. That's what computers do, right? They help us add, subtract, multiply, and divide quickly, and that's how most computer source code is written.

Q. For the source code that you reviewed -- scratch that.

Were you interested in the color-changing functionality within the source code base?

A. Yes.

Q. And for the color-changing functionality, was the source code the same across multiple versions?

A. Yes.

Q. What conclusions did you reach from your review of the source code?

A. That the source code met the limitation of utilizing arithmetic and logical operations to identify pixels that should be changed.

Q. When you were reviewing the ASUS user manuals of the accused products, did you get any indication of what exact chip was in each of the accused products from the manual?

A. Can you clarify "manual"?

Q. Yeah. That's a bad question.

Did the manuals, the user guides, and technical materials delineate between whether or not a MediaTek chip was in the accused device or some other brand of chip?

A. No.

Q. But did -- in your opinion, did they operate the same? The monitors, did they have similar functionality?

A. Yes.

Q. And did you review the source code for all of the accused products?

A. No.

Q. And did you believe you needed to?

A. No.

Q. Why is that, sir?

A. What I was looking for was a representation of -- you know, a function for color-changing in a monitor. When you're writing software and you have -- you've written a piece of source code that achieves a goal like color adjustment, you don't rewrite it for different devices. You -- as was mentioned earlier, you cut and paste and use that code over and over again.

It takes -- it takes a lot of work in industry -- there's a lot of work that goes into developing computer code and getting it to work right. And you -- so each time you start over, that's another investment that you have to make. So it's very common practice to get a function that

works and utilize it in all of your products.
Q. You said earlier today that for the 6-axis and 3-axis, generally speaking, the OSD menus were relatively the same, right?
A. Yes.
Q. All right. If two different accused products use two different brands of chips, would that lend that the functionality in those two different chips be relatively the same?
A. Can you repeat the question?
Q. Yes.
A. I think I understand what you're saying, but...
Q. If you have two different chips in two different ASUS accused products, do they operate -- is it your opinion that they operate the same?
A. Yes.
Q. Whether it's 3-axis or 6-axis? Pardon me.
Do they operate the same if they are 3-axis?
A. Yes.
Q. And the same question for 6-axis?
A. Yes.
Q. What if they had different chipsets in it?
A. It'll not matter because ASUS has a valuable color-changing function that their customers have come to utilize, and, I don't know, maybe "love" is a strong word,

but it's a function that they're used to. And they would expect it to be the same on all of their products regardless of the chip or who wrote the code or what the code said. They would expect the color-changing function to be the same.

Q. Okay. Dr. Ducharme, I want to go to the claims now.

We talked about Claim 1 earlier this afternoon, and I'm going to show you on the screen the first part of Claim 1 of the '435 patent.

And do you have a paper copy of your -- a paper copy of your report handy up there?

A. I do.

Q. You might want to pull that out for reference.

A. Okay.

Q. Can you give me -- well, I'll tell you what. Let me give you a quick page number of where I want to -- can you turn to Page 13 as a reference for this series of questions?

A. Yes.

Q. All right. Did you consider whether the accused products literally infringe on Claim 1?

A. Yes.

Q. What does "literal infringement" mean?

A. That the accused products practice each limitation of the claim --

04:05:27 Q. Do you know what I mean --
04:05:27 A. -- of the claim.
04:05:30 Q. Pardon me, sir.
04:05:32 Do you know what the "doctrine of equivalents" is?
04:05:35 A. Yes.
04:05:35 Q. What's the doctrine of equivalents?
04:05:36 A. It's when an accused products practices a method or
04:05:40 system using -- achieving substantially the same function,
04:05:44 substantially the same way, achieving substantially the
04:05:47 same result.
04:05:49 Q. Could the accused products infringe either literally or
04:06:00 under the doctrine of equivalents generally?
04:06:06 A. I don't -- I don't know.
04:06:07 Q. Okay. Let's step through the claims and put this in
04:06:10 context here.
04:06:11 Let's start with the first limitation. We talked
04:06:15 about this earlier this morning.
04:06:17 Claim 1 of the '435: A method for independently
04:06:23 controlling hue or saturation of the individual -- of
04:06:27 individual colors in real time digital video image,
04:06:29 comprising the steps of.
04:06:31 Do you see that?
04:06:32 A. Yes.
04:06:32 Q. All right. Let's start with Step A: Receiving and
04:06:35 characterizing the real time digital video input image

featuring input image pixels.

What conclusion did you reach -- pardon me, I'm so sorry.

In rendering your opinion on direct infringement, what did you do to evaluate -- what did you do to evaluate whether or not the claim infringed -- the claim infringed on the accused products? What did you look at?

A. Okay. To determine whether or not the accused products infringed, I looked at the claims -- claim limitations that you see, using the Court-ordered claim construction.

So any terms that are in here, defined by the Court, I used those -- that wording and that understanding to read these claims, and then I looked at the accused devices. And when I say looked at, I evaluated technical literature, as well as users manuals, and we looked at the code, which we just spoke about, and then I also tested two of the devices.

Q. Thank you, sir. Sorry I left that out.

And we talked all about that earlier today. Going back to the question of Claim 1(a), what was your conclusion -- what conclusion did you reach with regard to Claim 1(a)?

A. The accused products infringed or met the -- the -- practiced the limitation of Claim 1(a).

Q. Yeah, infringed.

So how did it infringe? How do they infringe? Excuse me.

A. Well, simply by plugging an HDMI cable into the back of it, it receives that video signal and characterizes that. That digital format that's coming in, we know -- the information that's on the cable, it's able to understand it. So it's able to receive and characterize the digital video -- the real time digital video.

Q. Okay. Going to Step 2 -- excuse me -- Step 1(b) -- that's already up there.

I'm not going to read the whole thing, but it starts: Selecting to independently change the hue or saturation of an individual color in the real time digital video image. And then talks about by selecting an independent color hue control delta value -- and so my question to you is what conclusion did you reach with regard to 1(b)?

A. That the accused products infringe.

Q. How?

A. They meet this limitation by presenting an On-Screen-Display, presenting the opportunity to the user to change the colors, to introduce a delta value, and that's what that slider is, it's a delta value.

Q. Do you remember the range from the -- the test we -- that you -- the demonstration that you did this morning

for, like, value changes, whether it's saturation or whether it's hue?

A. Do I remember the range?

Q. Was it 0 to 100?

A. Yeah. On the 3-axis monitor, it's 0 to 100, and they started at 100 when I did the demonstration.

On the 6-axis monitor, they go 0 to 100, and by default, those sliders -- the middle value is 50. So I think I -- I think I went from 50 to 0. Those are all delta values.

Q. Okay. And, again, I don't want to talk specifically about this, but do you have Paragraph 57 in front of you?

My question is: Did you analyze the MediaTek source code regarding this claim limitation?

A. Okay. What is the question?

Q. Did you analyze the MediaTek source code when evaluating this claim limitation?

A. Yes.

Q. Okay. Can you tell us generally what it related to, the concept?

A. It was a section of the code that was able to record a hue or saturation gain.

Q. That's plenty, Dr. Ducharme. Thank you.

I want to go to 1(c). 1(c) is: Identifying a plurality of said input image pixels having said selected

04:12:05 individual color in the real time digital video input image
04:12:12 with the hue or saturation selected to be independently
04:12:15 changed by performing arithmetic and logical operations
04:12:20 using input image pixel values of each said input image
04:12:29 pixel of the real time digital video input image.
04:12:34 What conclusion, sir, did you reach with regard to
04:12:38 Step 1(c)?
04:12:39 A. That the accused products infringed -- or met the
04:12:42 limitation in Claim 1(c).
04:12:44 Q. Okay. Now, you were talking about arithmetic and
04:12:46 logical operations earlier. So can you tell us a little
04:12:48 bit about your analysis -- generally speaking, your
04:12:50 analysis and how the accused products met that limitation?
04:12:53 A. So, once again, this claim is you receive the video
04:12:56 image, then the user gives a delta value on the slider,
04:13:00 and, and then in (c), it goes through and identifies all
04:13:03 the pixels that have that change -- that color that you
04:13:06 want to change.
04:13:07 And so in this operation, it's a little different
04:13:11 for the 3-axis than the 6-axis.
04:13:14 In the 3-axis, it uses arithmetic and logical
04:13:20 operations to identify colors that have red, green, or
04:13:25 blue. Those are the 3-axis colors.
04:13:29 It's a little bit more complicated in the 6-axis
04:13:31 because there are six colors now, and so it uses, once

again, arithmetic and logical operations to identify all the pixels with the colors red, green, blue, cyan, magenta, or yellow.

Q. And "input image pixel values," you want to expand on that?

A. Yeah. To --

Q. I'm sorry, Dr. Ducharme. I'm sorry. I thought that, for purposes of the record, you also formed the -- your opinion of this claim limitation 1(c) by your analysis of the MediaTek source code in part, correct?

A. Yes.

Q. All right. Let's go to 1(d).

We talked about 1(d) earlier. It's: The determining corresponding output image pixel values for each of said plurality of said input -- input image pixels identified as having the selected individual color in the real time digital video image.

Did you form a conclusion with regard to 1(d)?

A. The accused products meet the limitations of this claim, so they infringe it.

Q. Why? And if you'd like to reference your report, I know that maybe that's a little easier.

A. Well, so, in this step, we've identified a plurality of pixels that we should change because they're associated with a color on the slider. And a -- we also have a

plurality -- or a whole bunch of pixels that we've decided in the previous step, (c), not to change.

And so in this step, we execute the change. We change all the pixels that should be changed, and we don't change the remaining pixels, and that's what this is primarily -- and the demonstration of this is the demonstration that we did earlier and what you see happen when you move the sliders.

You see red colors in the 3-axis monitor, red colors change, and colors that don't have red in them, like the blue and the green, don't change.

Q. And then, Dr. Ducharme, can you turn -- just glance at your report: 31, Paragraph 76.

A. Okay.

Q. Sorry. One second, sir.

Okay. And, again, you -- you considered the analysis of the MediaTek source code in your conclusion on this claim limitation, as well?

A. Yes.

Q. And did you conclude in your analysis that there is 6-axis color independent control of saturation and hue?

A. Yes.

Q. And then the final step is the displaying step. That was -- that's 1(e), Claim 1(e): Displaying a real time digital video output image including said corresponding

plurality of said output image pixels.

Did you find -- what was your conclusion with regard to this limitation?

A. That the accused products infringed.

Q. All right. Now, that was the -- that was the independent claim.

You said earlier this afternoon that there was other asserted claims: 1 through 3, 5 and 6, and 13 through 15, correct?

A. Yes.

Q. Let's talk about Claim No. 2. Now, Claim No. 2 is a dependent claim, correct?

A. Yes.

Q. All right. And what's a dependent claim?

A. It is -- it references back to an initial independent claim. It's dependent on the first claim being used.

Q. Now, I'm at Page 34 of your report.

Claim 2, the method of Claim 1 -- I assume that means the -- it depending on Claim 1, right -- whereby the real time digital video input image is a -- of a format selected from a group consisting of RGB format, YCrCb format, and YUV format, whereby the individual colors of one said format can be characterized by the individual colors of a second said format by using appropriate linear transformations between said formats.

Did you -- what conclusions did you reach with regard to Claim 2?

A. The accused products infringed on this claim.

Q. What is RGB and what is -- what is RGB?

A. It's -- it's a way of organizing color information. So most of the color -- most of the pictures that we see have a red value, a green value, and a blue value, and a single pixel will have a -- you know, depending on the color of the pixel, it'll have those three values, just like we saw on the demonstration earlier.

YCrCb are component type. These are just different ways of expressing the val -- the color values of the pixel.

Q. Do you know what format most computers or laptops use when connecting to a monitor?

A. RGB.

Q. And what about cable televisions?

A. That gets complicated.

Q. Is it YCrCb or not necessarily?

A. It depends on what the -- ultimately what the display box -- I'm sorry -- the monitor the display is attached to. The signal has to come from somewhere. If it's streamed, then it's RGB.

Q. All right. Let's go -- oh, pardon me.

Did you say that your conclusion -- that you had

formulated a conclusion with regard to Claim 2?
A. Yes.
Q. And what was that?
A. It infringes.
Q. Thank you.
Let's go to Claim 3, another dependent claim, and I'm going to ask you the same questions. The method of Claim 1: Whereby the real time digital video input image features basic colors red, green, and blue and complementary colors yellow, cyan, and magenta in RGB color space whereby values of said complementary colors are expressed in terms and evaluated from linear combinations of values of said basic colors.
What conclusion did you reach with regard to Dependent 3, sir?
A. The accused products infringe.
Q. And can you explain that?
A. Hold on one second.
Just very simply that you can express these colors, yellow, cyan, and magenta, as linear combinations of the other colors, red, green, and blue.
Q. What is an 8-bit value for color?
A. 8-bit is like a -- it's -- refers back to like a digital notation. You know that computers handle information in 1s and 0s, and we use more -- either more or

less of these 1s or 0s to make bigger numbers. So when we talk about 8-bit, we're talking about eight 1s or 0s. So an 8-bit number that goes from 0 to 255, so it has 256 values if we start at 0. So 0 to 255 is 8-bit.

Does that answer your question?

Q. Yeah. Okay. The next asserted claim is another dependent claim. Will you read that for us, sir?

A. The method of Claim 1 wherein -- whereby in Step (b), numerical range of said independent color hue control delta value and numerical range of said independent color saturation control delta value corresponds to an arbitrary interval of integers.

Q. And my first question to you is: What is the reference back to Step 1(b)?

A. The reference back to Step 1(b) is it's a dependent claim on that particular step where you're expressing -- Step (b) talks about expressing changes in color in delta values, and this is just a dependent claim expanding on what the range of delta numbers are.

Q. Let me go back very briefly to 1(b), so you can explain it in context.

Do you see 1(b) on your screen?

A. Yes.

Q. Okay. So it's referring back to this step, and did you say, was that a delta value?

04:26:01 A. Yeah. So in this step, this is where we're looking at
04:26:04 the On-Screen-Display, and we've got those sliders moving
04:26:09 back and forth. And that's our delta value. So if you go
04:26:11 to claim -- what was it, 5, Claim 5 is teaching that the
04:26:18 range of numbers for the delta values are -- it's an
04:26:24 arbitrary interval of integers. That means whole numbers.
04:26:28 Q. And what -- yeah. You said the range earlier today
04:26:41 when you were doing the demonstration was 0 to 100?
04:26:46 A. Yes.
04:26:46 Q. And I don't want to be -- I don't think I had you
04:26:51 explain this. We went from Independent Claim 1 to
04:26:56 Dependent Claim 2 to Dependent Claim 3, and we skipped
04:27:04 Claim 4, correct?
04:27:04 A. Yes.
04:27:05 Q. And we're at 5 now?
04:27:07 A. Yes.
04:27:08 Q. So there wasn't a -- you didn't -- you're not rendering
04:27:09 an analysis on Claim 4?
04:27:12 A. No.
04:27:12 Q. Conclusion, rather. Okay. Thank you, sir.
04:27:16 Okay. Let's look at Claim 6. Is this a dependent
04:27:20 or independent?
04:27:22 A. Dependent claim.
04:27:22 Q. Can you please read it for us, sir?
04:27:24 A. The method of Claim 1, whereby in Step (b), numerical

range of said independent color hue control delta value is an interval between negative 1 and plus 1.

Q. And did you find -- did you conclude that this Claim 6 was met?

A. Yes.

Q. And how so?

A. The sliders go from 0 to 100, but, you know, the values negative 1 to plus 1 can easily be -- mathematically be transformed to 0 to 100.

Q. Because is it -- is it the case that negative 1 and plus 1 can be scaled to 0 to 100?

A. Yes.

Q. Okay. Now, we're not asserting -- Lone Star is not asserting Claims 7, 8, 9, 10, 11.

Next claim they're asserting is Claim 13, correct?

A. Correct.

Q. All right. Why don't you read that for us, please?

A. The method of Claim 1, whereby Step (d) is performed following said identifying each said input image pixel, one at a time, of said plurality of said input image pixels, or, is performed following said identifying entire said plurality of said input image pixels, as having said individual color in the digital video input image whose hue or saturation was selected to be independently changed.

Q. Did you conclude -- what were your conclusions with

04:29:43 regard to whether or not Claim 13 infringed?
04:29:45 A. My conclusion is that this infringes -- the accused
04:29:48 products infringe this claim.
04:29:49 Q. And could you -- why?
04:29:51 A. Because in my testing, I was able to conclude that the
04:29:57 accused devices complete the process of identifying the
04:30:00 plurality of image -- input pixels one at a time or as a
04:30:08 plurality.
04:30:16 Q. Okay, sir. And then Claim 14 -- two more here.
04:30:21 Claim 14, another dependent, could you read that aloud for
04:30:24 us?
04:30:24 A. The method of Claim 1, whereby in Step (d), for
04:30:28 independently controlling the hue of said selected
04:30:31 individual color in the real time digital video image, said
04:30:36 independent color hue control function is a function of
04:30:39 said input image pixel values of said plurality of said
04:30:46 input image pixels and of said corresponding selected
04:30:52 independent color hue control delta value.
04:30:52 Q. And your conclusion with regard to Claim 14?
04:30:55 A. It infringes.
04:30:56 Q. And can you explain?
04:30:58 A. The accused devices allow for the adjustment of an
04:31:04 individual color in real time digital video. Do that with
04:31:12 an on-screen menu -- On-Screen-Display.
04:31:20 Q. And Claim 15, sir, could you please read that?

04:31:29 A. The method of Claim 1, whereby in Step (d), for
04:31:32 independently controlling the saturation of said selected
04:31:36 individual color in the real time digital video image, said
04:31:39 independent color saturation control function is a function
04:31:42 of said input image pixel values of said plurality of said
04:31:49 input image pixels and of said corresponding selected
04:31:55 individual (sic) color saturation control delta value.
04:32:00 Q. And what is your conclusion regarding Claim 15?
04:32:04 A. That the accused devices infringe this claim.
04:32:09 Q. Why?
04:32:10 A. Well, the accused devices adjust the individual color,
04:32:12 and real time video is a function of the saturation, and
04:32:15 the adjustment is actuated through using independent color
04:32:20 saturation control on On-Screen-Display.
04:32:24 Q. Okay, Dr. Ducharme. I have a couple of other questions
04:32:29 before we leave this topic. Thank you for bearing with me.
04:32:45 I want to direct your attention to Page 28 of your
04:32:54 report, sir.
04:33:14 A. Okay.
04:33:14 Q. All right. We were talking earlier about this concept
04:33:20 called doctrine of equivalents. Remember that?
04:33:24 A. Yes.
04:33:25 Q. And you said doctrine of equivalents was what, sir?
04:33:34 A. When an accused device practices a limitation in
04:33:37 substantially -- with substantially the same function in

substantially the same way with substantially the same result.

Q. And is -- can you -- it won't take but a second, but could you please read, silently, Paragraph 70? I want to ask you a couple of questions about that.

A. Okay.

Q. Okay. Now, are you advancing -- are you also advancing a specific doctrine of equivalents opinion, as well?

A. I'm sorry. I don't understand the --

Q. Okay. Well, in your analysis of discussing the identification of pixel values with individual colors to be changed, you discuss what is a matrix or a LUT -- a LUT -- do you see that -- excuse me, a LUT transform?

A. What -- how -- do you want me to tell you what they are?

Q. Yes.

A. A matrix operation is just an array of numbers. It's a way of multiplying arrays of numbers times each other. And we call it a LUT. It's a look-up table. It's just a way of -- it's like a secret decoder ring. And you have values and you can look up in the table to see what the new value should be. It's just a way that we -- things are done in source code, typically.

Q. And so if there's -- did you say it was a LUT?

A. I just always called it a look-up table. I never

04:37:02 pronounce it L-U-T or whatever you call it.
04:37:04 Q. Okay. For the purposes of the record, though, it's
04:37:07 LUT; is that what you're saying?
04:37:09 A. Yes, LUT.
04:37:14 Q. Is it the case that if there is a look-up table, that
04:37:17 does not change your opinion with regard to the 1(c) step?
04:37:26 A. That's correct.
04:37:26 Q. And a matrix?
04:37:27 A. That's correct.
04:37:29 Q. Give me one second, Dr. Ducharme, before we leave this
04:37:49 report. I have one more thing to ask you.
04:37:52 I was going to -- I'm going to ask you about your
04:38:05 opinions with regard to brightness and tint. Do you
04:38:09 remember that? How you -- did you have an opinion on
04:38:13 brightness and tint?
04:38:18 A. I'm not sure I'm understanding the words.
04:38:21 Q. I'm trying to find you --
04:38:23 THE COURT: I'm sorry.
04:38:28 MR. JOSHI: Outside the scope.
04:38:32 MR. SABA: Find it in one second, Your Honor.
04:38:33 THE COURT: Wait a second. There was an
04:38:33 objection. Outside the scope of what?
04:38:35 MR. JOSHI: Of his expert testimony.
04:38:36 THE COURT: He's providing his -- I'm confused
04:38:39 about the basis of the objection. He's in his direct

now,so how is it outside the scope?

MR. JOSHI: Brightness and tint are not in his report.

MR. SABA: Your Honor, I found it. It actually is in his report at footnote 12.

THE COURT: Okay. I'll take that representation.

MR. SABA: Thank you, Your Honor.

BY MR. SABA:

Q. Dr. Ducharme, can you please look at your report at footnote 12, please?

A. Can you tell me what page that's on?

Q. Page 22. My apologies.

A. And what is the question?

Q. I want to ask you about -- the question is this: It -- what if a color control value is brightness?

A. Okay.

Q. Does that change your opinion on -- with regard to the accused devices?

A. No. My -- none of the claim limitations are -- have anything to do with a name of the function, just that they allow for independent control of hue or saturation adjustment.

So brightness, I could consider that to just be the name of the delta value or a label I put on a slider.

Q. And same for color?

04:40:49 A. It wouldn't matter -- necessarily wouldn't matter in
04:40:57 the context. It's the word "color" would -- I think that
04:40:59 would satisfy the limitation.
04:41:02 Q. Give me one second, sir.
04:41:19 Dr. Ducharme, I want to direct your attention to
04:41:34 what's -- what's been admitted, P-26-1, and I want to ask
04:41:45 you a couple of quick questions about this. Do you see
04:41:47 this guide?
04:41:48 A. Yes.
04:41:48 Q. Familiar with this?
04:41:49 A. Yes.
04:41:49 Q. All right. We were talking earlier this afternoon
04:41:54 about -- you had said something to the effect of every 200
04:42:03 or 300 hours a device might need to be calibrated or have
04:42:09 their colors -- have its colors adjusted. Do you remember
04:42:13 that?
04:42:14 A. Yes.
04:42:14 Q. And would that -- does that involve the color-changing
04:42:18 technology? Is that what you were referring to?
04:42:20 A. That's how you would actuate a change on the -- on the
04:42:26 color on the device, so, yeah.
04:42:28 Q. All right. I want to direct your attention to
04:42:31 Page 3-16. And you see -- we talked -- I know that -- that
04:42:43 this was discussed earlier today, not necessarily with you
04:42:46 with regard to this device, but third to the bottom there

is this: Screen image has color defects. White does not look white.

Do you see that?

A. Yes.

Q. Is that an example of how you might need to adjust a monitor after 200 or 300 hours of use?

A. Yes.

Q. And what does the possible solution say? Do you see the last bullet point on the right?

A. Yes. It -- ASUS instructs the user to adjust the RGB color settings.

Q. And then keep reading.

A. Well -- or select the color temperature via the On-Screen-Display.

Q. Okey-doke. All righty. I want to talk to you about a slightly different topic now, because you also provided not only your -- your opinions on infringement but your opinions on validity, right?

A. Yes.

Q. All right. What did you -- what were you asked to do with regard to your opinions on the '435's validity?

A. Can you clarify the question?

Q. Yeah. What did you do with regard to validity? What were you asked to do?

A. I was look -- I was asked to consider the claim

limitations of the '435 patent against claims presented in other prior art.

Q. Do you -- did you say the '435 patent?

A. Yes.

Q. Okay. And did you have the opportunity to review Defendant ASUS's report -- expert report on invalidity?

A. Yes.

Q. All right. And what -- who wrote the report -- who wrote the report on behalf of ASUS?

A. Dr. Stevenson.

Q. And do you agree with Dr. Stevenson's opinions?

A. No.

Q. What is the primary basis that Dr. Stevens -- Stevenson -- excuse me -- is using to support his opinion that the '435 is somehow not valid?

A. In the report, he utilizes a prior art patent. That means a patent that was issued before the '435 patent, so prior art. That's being referred to as Brett in this case.

MR. SABA: And, Denver, could you kindly publish Slide 48?

BY MR. SABA:

Q. Dr. Ducharme, do you see this reference?

A. Yes.

Q. All right. This is the -- what is called the "Brett reference"?

04:46:27 A. Yes.
04:46:28 Q. All right. Why is it called the Brett reference?
04:46:32 A. The author's name is Brett -- the inventor's name --
04:46:35 not author. Sorry, inventor.
04:46:38 Q. Okay. So to be clear -- to set the stage, and I don't
04:46:46 want to get ahead of myself and I'm sorry for -- for a
04:46:51 slight delay here -- Dr. Stevenson has not testified yet,
04:46:55 correct, not to your knowledge?
04:46:57 A. Not to my knowledge.
04:46:59 Q. Right. But he -- but -- but -- and Defendant ASUS's
04:47:04 opening statement -- Defendant ASUS had said that --
04:47:08 yesterday that they were going to present an expert to --
04:47:12 to discuss potential invalidity on the patent, correct?
04:47:16 A. Yes.
04:47:17 Q. All right. And so you're familiar with that report?
04:47:20 A. Yes.
04:47:21 Q. And the basis of the report is this Brett reference?
04:47:29 A. Yes.
04:47:29 Q. And I'm sorry, can you tell me who Brett is again?
04:47:32 A. He's this inventor of this patent that you're
04:47:35 displaying on the screen.
04:47:36 Q. All right. What is -- what is the Brett reference?
04:47:40 What is it?
04:47:41 A. It -- it's a patent for the color adjustment of what
04:47:51 are called telecines. A telecine is used to take old film

and transfer it to digital video. And so the patent is mainly concerned with color adjustment of these telecines.
Q. I'm sorry. What is a telecines?
A. It's telecine, and it's -- like a 35-millimeter film transfer device. So it transfers 35-millimeter movie film to digital video.
Q. Does the Brett reference disclose or teach a real time digital video?
A. No, this patent has nothing to do with real time digital video.
Q. So it's taking film and moving it over to a digital medium?
A. Yes.
Q. In order to -- I need to ask you some questions about this Brett reference and your opinion -- well, let me ask you this question. What is your opinion of the validity of the '435 patent, if that wasn't clear?
A. Well, my -- my opinion doesn't matter. It's a valid patent that's been granted by the U.S. Patent Office.
Q. And what is your general opinion critiquing ASUS's expert's opinion for invalidity?
A. That it's incorrect.
Q. And the only piece of prior art, as they say, that's referenced is this Brett patent?
A. Yes.

04:49:56 Q. And the Brett patent references -- does not reference
04:50:04 real time digital video?
04:50:05 A. No.
04:50:05 Q. All right. Okay. We talked about telecines. You told
04:50:28 us about that.
04:50:28 Let me go to Claim 1(b). Now, when I'm going
04:50:34 through the claims here, the comparison I'm going to be
04:50:37 asking you about is -- briefly is the claims of the '435
04:50:48 patent against any sort of other prior art reference. So
04:50:50 that's how I want to -- that's what I want to ask you about
04:50:53 from a comparison standpoint.
04:50:55 A. Okay.
04:50:55 Q. All right.
04:50:56 A. Yes.
04:50:56 Q. And so I'm looking at Claim 1(b) here, and we talked
04:51:00 about this ad nauseam a second ago, a method for
04:51:04 independently controlling, and then '435, 1(b) says:
04:51:11 Selecting to independently change the hue or saturation of
04:51:14 a video input image.
04:51:16 Right?
04:51:16 A. Yes.
04:51:17 Q. All right. The question I have for you is this: Does
04:51:21 Brett disclose this limitation?
04:51:23 A. No.
04:51:23 Q. And why?

04:51:29 A. Brett doesn't let you -- the invention that Brett was
04:51:38 granted a patent for, it doesn't allow you to select an
04:51:42 individual color. It's -- it allows you to choose ranges
04:51:47 of hue and saturation.
04:51:50 There's dials that you can use to select a range
04:51:57 of colors, and then there are dials to change how those
04:52:05 colors are changed. It doesn't allow you to select an
04:52:10 individual color.
04:52:10 Q. And how do you know that, Dr. Ducharme?
04:52:12 A. I read the patent and compared it, along with the
04:52:17 Court's construction of all the terms, to the claim
04:52:21 limitations that are asserted from the '435 in this case.
04:52:26 Q. Is it important to analyze in that process all of the
04:52:31 claim limitations of the '435?
04:52:37 A. No.
04:52:37 Q. It's not? Oh. I'm sorry. Let me rephrase the
04:52:42 question.
04:52:42 Is it the case or did you assume that in order for
04:52:47 something to potentially invalidate a patent claim that's
04:52:52 issued, it would have to read on every limitation that's
04:52:56 claimed?
04:52:58 A. Every limitation of one claim.
04:53:00 Q. Right, one claim. And we're talking about Claim 1,
04:53:03 right?
04:53:03 A. Yes.

04:53:03 Q. Right. So, for example, if something does one step --
04:53:10 1(a), 1(b) but not 1(c) or 1(d), then there's no invalidity
04:53:17 issue, correct, in that hypothetical?
04:53:20 A. Yes, that's correct.
04:53:21 Q. So that's -- I should have put that in context.
04:53:24 So you said that Brett doesn't select an
04:53:27 individual color, correct?
04:53:29 A. Correct.
04:53:30 Q. All right. Does this mean that the user in Brett is
04:53:40 not selecting like an R, G -- even an R, G, or B?
04:53:45 A. No.
04:53:45 Q. And what's R, G, or B?
04:53:48 A. Red, green, blue.
04:53:50 Q. Right. That's the individual color, correct?
04:53:52 A. Yes.
04:53:53 Q. And is Brett teaching a way of -- and you said earlier
04:54:20 that Brett is not even discussing video. Is it -- then
04:54:25 what is it sort of processing?
04:54:28 A. The signals detected from the film -- the light signals
04:54:40 detected from the film.
04:54:41 Q. Like a still frame; is that your understanding?
04:54:44 A. Yeah, I mean, a film is a bunch of static pictures
04:54:49 placed together in a periodic film -- succession of images,
04:54:56 I guess, is what they call it.
04:54:59 Q. And then with regard to Claim 1(c) and 1(d), tell me

04:55:15 about that in the -- in light of this Brett reference.
04:55:21 A. Well, 1(c) and 1(d), when you read it, it's real time
04:55:29 digital video, so these don't apply to Brett.
04:55:39 Q. All right. So you're saying just because -- is it the
04:55:43 case that because the '435 patent is dealing with digital
04:55:46 video and Brett is not, then there's no conflict with
04:55:53 '435, 1(c) and 1(d)?
04:55:55 A. Yes. Well, that and combined with the previous step,
04:55:59 you weren't able to select an individual color to then
04:56:04 identify the plurality of pixels using arithmetic logic.
04:56:09 So the previous -- because the previous claim wouldn't have
04:56:12 been met -- sorry -- claim step wouldn't have been met, you
04:56:16 can't perform (c) or (d). But both (c) and (d) in plain
04:56:25 and ordinary language say real time digital video.
04:56:29 Q. Whereas Brett does not?
04:56:31 A. Yes. Correct.
04:56:32 Q. All right. And then I want to talk to you about
04:56:36 Claim 1(e). I don't want to read it again for the ladies
04:56:42 and gentlemen of the jury because we talked about it
04:56:44 earlier, but we're showing you -- can you see on the screen
04:56:48 we're showing you '435, Claim 1(e)?
04:56:52 A. Yes.
04:56:52 Q. All right. You want to tell me a little bit about that
04:56:56 with a reference to your criticisms on the Brett reference?
04:57:10 A. Once again, this is referencing real time video so it

04:57:14 doesn't apply to Brett.
04:57:16 Q. Is -- and you said you could not select an individual
04:57:21 color in Brett, correct?
04:57:22 A. That's correct. In this example I'm trying to show
04:57:29 that, but it wasn't possible.
04:57:30 Q. And -- and for what Brett teaches, is that -- does that
04:57:46 affect sort of all -- I don't even know, pixel values -- or
04:57:52 not pixel values -- does that affect all colors in the
04:57:56 Brett -- Brett reference?
04:58:03 Let me rephrase that.
04:58:05 A. Thank you.
04:58:05 Q. You can edit something in Brett, correct?
04:58:08 A. Yes.
04:58:08 Q. All right. And you said earlier that you can't edit
04:58:13 individual colors?
04:58:14 A. Correct.
04:58:14 Q. All right. So can you edit sort of the features of all
04:58:18 colors?
04:58:20 A. You can -- you can define a range -- a range of hue,
04:58:24 saturation, and luminance, and those colors will be
04:58:30 changed.
04:58:31 Q. But not for one individual color?
04:58:33 A. That's correct.
04:58:33 Q. Okay. Did you want to expand at all on the pictorial
04:58:39 chart that you -- I believe you included with your opinion?

04:58:47 A. Yes.
04:58:47 Q. Please.
04:58:49 A. Sorry. Repeat the question.
04:58:51 Q. This is the -- did you make this pictorial here, the
04:58:54 bottom part?
04:58:55 A. I did.
04:58:56 Q. All right. You want to explain it?
04:58:58 A. Sorry. It's been awhile since I thought about this
04:59:18 picture.
05:00:19 So in this example I'm trying to show -- well,
05:00:23 trying to use what was taught in the Brett patent to
05:00:29 explain this conversion.
05:00:31 So in the Brett patent, they were using 10-bit
05:00:38 instead of 8-bit RGB values, and they were converting RGB
05:00:43 values to these HSL values, hue, saturation, luminance
05:00:51 values, to then provide the user with hue, saturation, and
05:00:55 luminance controls.
05:00:56 The problem becomes when you go back to RGB after
05:01:02 the change is made and -- on the HSL, hue, saturation, and
05:01:10 luminance knob. So I've got two examples here. The first
05:01:15 is the input pixels, and the RGB 8-bit have a value of 500
05:01:22 and then green 00. In the pixel processing, once that's --
05:01:25 I've converted that from RGB to HSL, and these are
05:01:30 straightforward mathematical transformations that are well
05:01:34 known in the industry, you get this value that's shown.

When you convert back to RGB, you see on the right I've got values of 500 and a green 0 and blue 0.

On the bottom, I've actually moved one of the HSL knobs on Brett's invention. So we start with red, and I see red is 500, green is 0, blue is 0. That's my input pixel, I value. I convert that to HSL, and that gives me the numbers that you see, and make the adjustment to hue with the knob that Brett disclosed.

When I go back to red, green, blue, you can see, I don't have 500 red, green, and blue. So I didn't have the ability to select an individual color to change.

MR. SABA: Your Honor, would this be an appropriate time to stop? Okay. Thank you.

THE COURT: I think so. Yes. Thank you, Mr. Saba.

Ladies and gentlemen of the jury, it's been a long day. Thank you for your attention and focus this morning and this afternoon, as well.

I'll ask you to be back no later than 8:45 in the morning so that we can start promptly at 9:00 o'clock here in the courtroom.

I'll remind you not to visit with anyone about the case, don't do any type of independent investigation or research, and don't post anything about any of the proceedings that you have observed.

Have a safe trip home, and we'll see you back in the morning.

COURT SECURITY OFFICER: All rise for the jury.

(Jury out.)

THE COURT: Okay. Please be seated.

You may step down.

Anything we need to resolve or discuss before we adjourn for the day?

MR. JOSHI: Yes, we have some issues, Your Honor.

THE COURT: Okay.

MR. JOSHI: I'll go up to the microphone.

THE COURT: Certainly.

MR. JOSHI: The first issue, Your Honor, is we will need to seal the courtroom during our cross of Dr. Ducharme because we want to use the source code, and we may use it more than once.

THE COURT: That's fine. All I would ask is that you, you know, group all of that material into the same section so that we can seal the courtroom once and get through that material and unseal the courtroom. I don't want to have to seal it and unseal it and seal it and unseal it. And I also don't want to seal the entirety of the -- of the testimony.

So just make sure we -- organize your -- your examination in a way that groups all that at one time.

05:05:06 MR. JOSHI: The second issue we have is I want --
05:05:09 tomorrow on Dr. Ducharme's cross, I want to be able to use
05:05:12 the Court's claim construction order as a demonstrative.
05:05:17 That's not front and center because their trial brief for a
05:05:20 mistrial, plus some of the objections we raised to him
05:05:26 being in violation of the claims -- the Court's claim
05:05:28 construction order, I want to be able to use that order.
05:05:32 MR. BENNETT: I don't think you can open the door
05:05:35 and then use that as an invitation to use something you
05:05:40 shouldn't have used to begin with. That's what they're
05:05:43 trying to do.
05:05:44 They opened the door by making the argument they
05:05:46 made at opening, and now they're trying to use that as a
05:05:49 reason to bring it in when they shouldn't. So we do object
05:05:52 to that. I mean, obviously it's fair game to impeach about
05:05:56 aspects of claim construction without --
05:05:57 THE COURT: Yeah, but I'm not sure you use the
05:06:00 order to do that, so --
05:06:01 MR. BENNETT: Right.
05:06:02 THE COURT: -- so let me ask you, Mr. Joshi, why
05:06:04 do you need the order itself beyond just the Court's
05:06:09 constructions?
05:06:09 MR. JOSHI: Because it's in the gray area where
05:06:11 it's not defined as, you know, a term means, term means.
05:06:15 But what the dispute here now is there is an indefiniteness

about when is red "red." And that depends on when other colors are a certain number or they're not of a certain number because red can be a combination of red and something else. And so that kind of a detail is in the claim construction order. That's in dispute.

THE COURT: Could you not just use the patent to do that?

MR. JOSHI: I could, I could. And what I would do is I would minimize the use of the claim construction order. I would say, you know, the claim construction order refers us to this inequality, and then go straight to the patent.

MR. BENNETT: The argument is you can use the patent, just use the patent. If we need to argue what the law is after the facts come in, that's what post-trial motions are for, directed verdict motions are for. That's not what interrogation is for.

THE COURT: I don't -- I'm -- I am not inclined to have you get into using the claim construction order beyond the constructions themselves.

MR. JOSHI: All right.

THE COURT: You can use the patent, I think, to achieve what you want to achieve, but, you know, if you -- you know, you can use the patent in the preferred embodiment, and, you know, I don't think it's necessary to

go through the order.

MR. JOSHI: Okay. And Mr. Oliver will address the next couple of issues.

MR. OLIVER: Two -- one substantive question and two more are kind of practical questions, Your Honor.

THE COURT: Okay.

MR. OLIVER: One question is, again, requesting a little bit of clarification on the Section 101 inoperability defense. And Your Honor has said it's a matter of law. It can't be tried to the jury.

And so the question is will we be permitted to present the testimony on that to the bench, or are you not taking any testimony on inoperability?

THE COURT: Here's my view at the end of the day, Mr. Oliver. I can't really tell you how to try your case.

I'm open to whatever you suggest is the proper procedure. Whether we argue that in some sort of a separate proceeding or you make some sort of argument during this trial, I'm open to whatever you think you need to do to protect your record and to protect your clients's interest. So that -- that's really the only suggestion I can make.

MR. OLIVER: May we, when we call Dr. Stevenson, have a portion of that testimony where the jury leaves the room, and we put it on the record outside of the presence

of the jury?

THE COURT: I -- that's -- strikes me as a reasonable way to handle it.

Mr. Bennett, thoughts?

MR. BENNETT: I --

THE COURT: I mean, just for purposes of protecting their record.

MR. BENNETT: That raises a few complications for us perhaps. We can visit about it tonight and get back to the Court, but we'll get back to you on that tomorrow morning, Your Honor.

THE COURT: Maybe we can do it -- we can figure out a time.

When do we expect his testimony to begin? I don't guess you really know.

MR. OLIVER: He would probably be our second witness and --

MR. JOSHI: He's our second, yes.

MR. OLIVER: We have a very short fact witness, and then he would be our second witness. So it really depends on when the Plaintiffs -- you know, it would be 30 minutes into our case where he starts testifying.

THE COURT: Let me suggest you all think about it, and if you've got concerns about it, visit with -- visit with Mr. Oliver and see if you all can come up with an

approach that's agreeable and makes sense.

MR. BENNETT: Yes, Your Honor.

MR. OLIVER: Two questions that will -- one will affect both parties. And the request is, is it possible to allow the corporate representatives and expert witnesses to bring their cellphones into the courtroom? The guards won't let us. They said Your Honor could allow it, but we just wanted to get your thoughts on that.

THE COURT: So I will allow that against my better judgment. It has to be completely disabled so that it's silent and whatever, and if it is -- if it's used in any way that's distracting, it will be a problem, okay?

MR. OLIVER: Okay. Okay. May we just use them in the break room during breakouts?

THE COURT: That's certainly fine. Yes, I'm certainly agreeable to that. But --

MR. OLIVER: We've been just --

THE COURT: -- it has been my practice that they end up being distracting --

MR. OLIVER: Okay.

THE COURT: -- in the courtroom.

MR. OLIVER: So if the parties can agree upon a proposed order, can we just submit it to Your Honor so --

THE COURT: As to what?

MR. OLIVER: To -- because the security guards

said that they weren't --

THE COURT: No, that's not something I'm agreeable to the parties working out among themselves.

I'm telling you that to bring them into the courtroom --

MR. OLIVER: Okay.

THE COURT: -- they just have to be disabled in -- you know, essentially silenced. And not only do they have to be silenced, they can't be used in way that's distracting.

MR. OLIVER: Should we then just put them in the attorney's bags because the security guards won't let them carry the devices in?

THE COURT: I'll make arrangements to let them know that I am permitting the corporate representatives and experts to have them in the courtroom.

MR. OLIVER: Thank you, Your Honor.

THE COURT: But if -- but if I see them used in way that's distracting, Mr. Oliver, I promise you I will take them away.

MR. OLIVER: That is fine with me.

THE COURT: And I will return them at the end of the trial.

MR. OLIVER: Okay. Okay. Duly noted.

Final question is our expert, Dr. Stevenson,

hasn't had a chance to actually operate one of the devices that was operated today during the trial. And we are wondering if we can have a little bit of time after court adjourns with the device in the courtroom for him to --

THE COURT: Today, yes. Yes.

MR. OLIVER: Okay.

THE COURT: You can certainly do that.

MR. OLIVER: Thank you. That's all we've got.

THE COURT: Mr. Bennett, anything else?

MR. BENNETT: I have nothing, Your Honor.

THE COURT: Okay. See you all in the morning.

COURT SECURITY OFFICER: All rise.

(Time noted 5:12 p.m.)

COURT REPORTER'S CERTIFICATION

I HEREBY CERTIFY that the foregoing is a true and correct transcript from the stenographic notes of the proceedings in the above-entitled matter to the best of my ability.

May 18, 2021 — Date

s/ KATHRYN McALPINE/_____
KATHRYN McALPINE, RPR, CSR, CCR